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The fauna of the family Tachinidae (Diptera) in Haftad-Qolleh protected area (Markazi Province), with forty-six new records from Iran and description of a new species

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ABSTRACT. The fauna of the family Tachinidae (Diptera) was studied in the Haftad-Qolleh Protected Area, Markazi province, Iran. A total of 86 species belonging to 67 genera have been collected of which 46 species within 19 genera are newly recorded from Iran. The species *Magripa persica* Gilasian & Ziegler **sp. nov.** is described as new to science. Diagnostic characters for the newly recorded taxa are provided. Illustrations of the male terminalia and head of the new species as well as habitus images of the new records are presented.

Key words: Tachininae, Minthoini, *Magripa persica* **sp. nov.**, Markazi province, Iran

INTRODUCTION

The family Tachinidae with about 8600 described species worldwide is the second largest family in the order Diptera (Tschorsnig & Richter, 1998). All tachinid species are the endoparasitoids of insects, rarely of other arthropods, and some species can be considered as agents in natural control of agricultural pests. The Palaearctic region includes more than 2100 tachinid species and is considered one of the richest geographical regions with about 874, 706, 334 and 198 species belonging to the subfamilies Exoristinae, Tachininae, Dexiinae and Phasiinae respectively (Tschorsnig & Richter, 1998; O'Hara et al., 2020). Over the past two decades the taxonomy of the Iranian tachinids has been increasingly improved and become better known, thanks to the discovery and description of a number of new species from previously poorly studied areas (Tschorsnig, 2000; Richter, 2001; Gheibi et al., 2009, 2010; Gilasian et al., 2013a, 2013b, 2014a, 2014b, 2016, 2017, 2018, 2019, 2021; Seyyedi Sahebari et al., 2014a, 2014b, 2016, 2018a, 2018b, 2019, 2021; Ziegler et al., 2016).

During this study 67 genera became known to occur in this area of which the two genera *Persedea* Richter, 2001 and *Mesnilomyia* Kugler, 1972 have not been listed because they are currently treated as junior synonyms of *Rossimyiops* Mesnil, 1953 (Cerretti et al., 2009). Accordingly, their type species *P. exquisita* Richter, 2001 and *M. magnifica* Kugler, 1972 were synonymized with *R. exquisitus* (Richter, 2001) and *R. magnificus* (Kugler, 1972), respectively. The genus *Magripa* Richter, 1988 and its type species *M. autumnalis* Richter, 1988 was originally described from Tajikistan. In her study, Richter (1988) treated this genus as a member of the tribe Minthoini (Tachininae).

MATERIAL AND METHODS

The specimens were collected in Haftad-Qolleh Protected Area, Markazi province, Iran (Figs 1, 2A–D) with exception for a male and two female paratypes of the new species *Magripa persica* Gilasian and Ziegler **sp. nov.** collected in Paveh, Dodan, Kermanshah province, Iran. The Haftad-Qolleh Protected Area with an estimated 97,000 hectares is located in the east of the provincial capital city of Arak. This mountainous area, with the height of about 3000 m at its summit, has 350 mm annual precipitation and a temperature range from –30° C to 38°C during the year. The Haftad-Qolleh Protected Area is covered with mountain steppes without wooded areas (Fig. 2). The flora comprises at least 641 plant species from 63 families of which the family Asteraceae with 105 recorded species is the dominant one (Ansari, 2017). Other than small seasonal streams, there are not rivers or any kind of seasonal or permanent natural bodies of water, such as ponds or waterholes. Ten Malaise traps were run throughout the area, Chekab, Sibak, Kaftar khoon, Latehdar and Azna valleys, between 2016 and 2018 plus 2020 during spring and summer seasons. Pan traps were extensively used in open areas and in the vicinity of the man-made pools built for animals to quench their thirst during the dry seasons (Fig. 2D). Sweeping by insect nets was carried out in bushy areas and on streamside vegetation. To prepare some specimens from ethanol, we followed the AXA method proposed by van Achterberg (2009) to avoid shrinkage of the specimens.

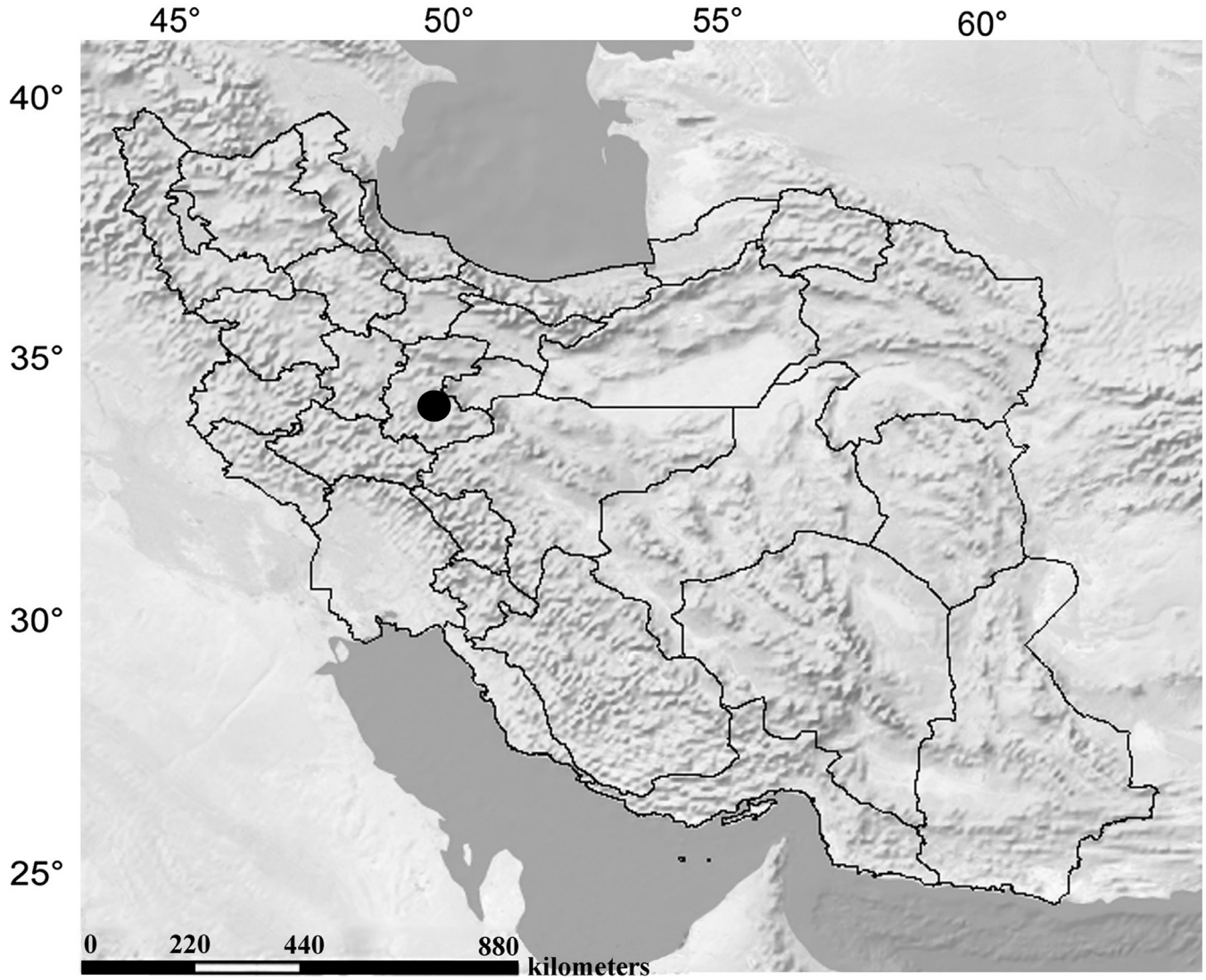

Figure 1. Locality of the examined material, Haftad-Qolleh Protected Area, Markazi province, Iran.

An Olympus® SZH stereo microscope, equipped with a drawing tube, was used for preparing the drawings of head and male terminalia. Inked drawings and digital images taken by a 650D Canon camera were edited using Adobe Photoshop CS2. The preparation of the male terminalia was carried out according to the methods outlined in Gilasian et al. (2016). The listed distribution data of the species follows O'Hara et al. (2020) and contains only the Palaearctic records in detail. Further data is also provided and accordingly referenced. The Palaearctic region has been divided into Asiatic, European and North African parts whose records are presented from east to west. In case of multiple zoogeographical occurrences for the same species, its non-Palaearctic records are briefly noted. The Fauna Europaea website (Tschorsnig et al., 2005) provides specific information for the European species.

The specimens are deposited in Hayk Mirzayans Insect Museum, Insect Taxonomy Research Department, Iranian Research Institute of Plant Protection, Tehran, Iran (HMIM). The paratypes of *Magripa persica* Gilasian & Ziegler **sp. nov.** are housed in HMIM and the Museum of Natural History, Leibniz Institute for Research on Evolution and Biodiversity, Berlin, Germany (ZMHB), and in the private collection of Joachim Ziegler, Bernau, Germany (CZB).

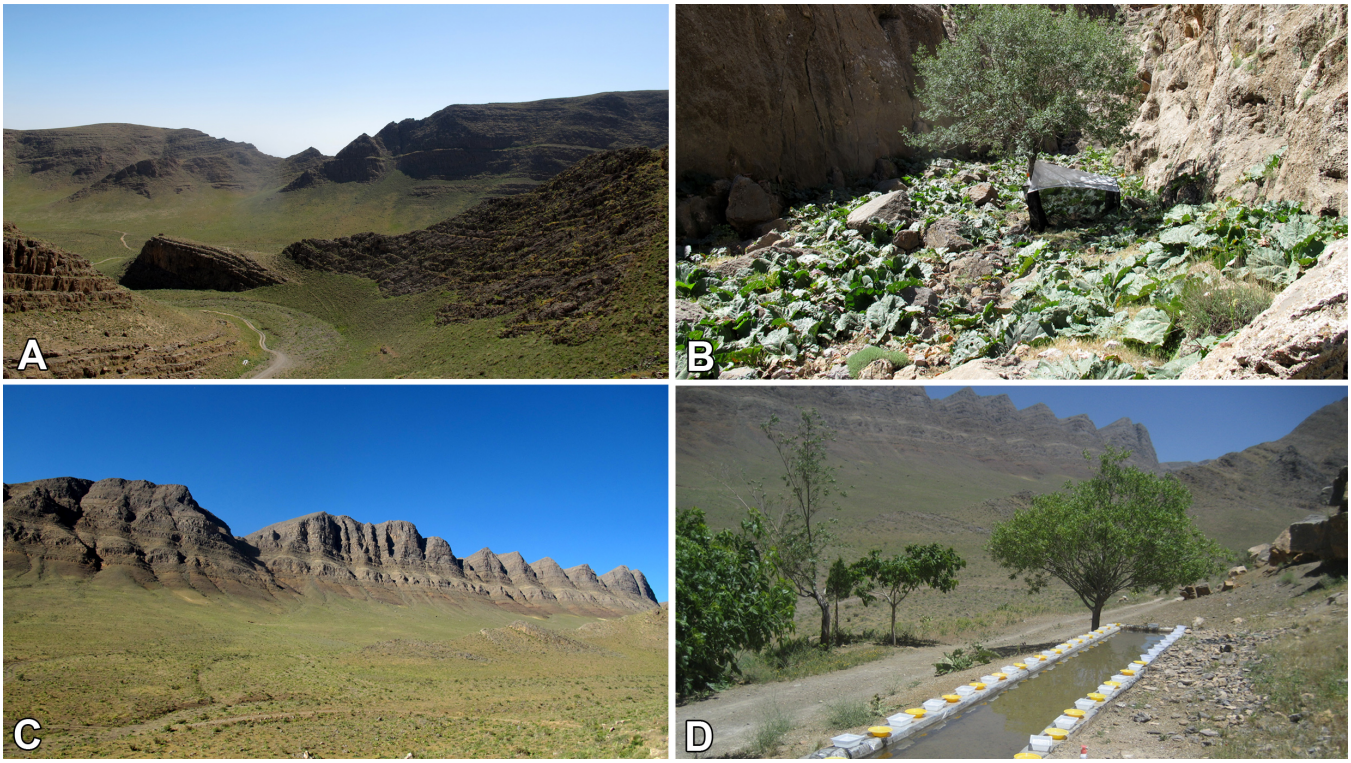

Figure 2. Haftad-Qolleh Protected Area. **A.** Chekab valley. **B.** Kaftar khoon valley covered with wild rhubarb. **C–D.** Sibak valley.

Measurements and ratios were calculated as proposed by Tschorsnig & Herting (1994) and Tschorsnig & Richter (1998). Statements given in square brackets in the description refer to paratypes. Overall lengths of specimens (in mm) were measured in lateral view from the anterior margin of the head, excluding the antenna, to the tip of the abdomen. The label data of specimens are given verbatim. The morphological terminology used in this paper follows Merz & Haenni (2000) (most external morphology), Stuckenberg (1999) (antenna), Sinclair (2000) (male terminalia) and Tschorsnig & Richter (1998) (wing).

RESULTS

Subfamily Dexiinae Macquart, 1834

Tribe Dexiini Macquart, 1834

Genus *Billaea* Robineau-Desvoidy, 1830

Billaea pectinata (Meigen, 1826)

Dexia pectinata Meigen, 1826:43. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Parafacial bare; facial carina well-developed, at least as wide as postpedicel in lateral view; arista including trichia distinctly narrower than postpedicel; prementum 2.0–2.5 times as long as wide; scutum with 4 presutural black vittae including two median narrow and two lateral semi-triangular vittae; scutellum orange; basicosta black; hind tibia with an irregular row of anterodorsal setae; abdominal tergite 3 with a pair of strong median marginal setae.

Material examined: 1♂ Chekab valley, 34°08′07.2″ N 50°15′56.1″E, 11.vi.2018, 2090 m, pan trap, E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Tajikistan, Transcaucasia, Israel. EUROPE: widespread except for Scandinavia and British Isles. **New record for Iran.**

Billaea zimini Kolomiets, 1966

Material examined: 1♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi.2018, 2090 m, pan trap, leg. E. Gilasian and M. Parchami-Araghi.

Distribution: ASIA: Turkmenistan, Iran.

Genus *Estheria* Robineau-Desvoidy, 1830

Estheria mesnili Cerretti and Tschorsnig, 2012

Diagnosis: Genal dilation, thorax, coxae, trochanters, femora and abdominal tergites 1+2 and 3 ventrally with black setulae; scutellum reddish-orange in about posterior 1/2; basicosta brown; frons in male 0.45–0.55 times as wide as an eye viewed dorsally; parafacial bare; lower facial margin not visible in lateral view; facial carina undeveloped; scape not prominent; arista including trichia 0.5–0.7 times as wide as postpedicel; prementum about 0.30–0.45 times as long as head height; 3 strong postpronotal setae arranged in a triangle; wing membrane entirely hyaline; petiole of wing cell r_{4+5} 0.15–0.20 times as long as vein M beyond bend; male genitalia as in Fig. 33 in Cerretti & Tschorsnig (2012).

Material examined: 1♂, 1♀, Latehdar, 33°59′39.1″N, 50°06′56.8″E, 3.vi.2017, 2291 m, swept, leg. E. Gilasian.

Distribution: ASIA: Israel (Cerretti & Tschorsnig, 2012). **New record for Iran.**

Genus *Zeuxia* Meigen, 1826

Zeuxia cinerea Meigen, 1826

Dexia distans (Wiedemann, 1830):380. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 4♂♂ 1♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 1♂, Chekab valley, 15.vi.2016, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂ 3♀♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi.–20.vii.2018, 2090 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 1♂, Sibak valley, 34°08′06.0″N, 50°10′59.0″E, 16.vi–15.vii.2018, 1872 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Kazakhstan, Iran, Armenia, Israel, Turkey. EUROPE: widespread except for Scandinavia and British Isles. NORTH AFRICA: Algeria.

Zeuxia roederi (Villeneuve, 1932) (Fig. 3A)

Peyritschia roederi Villeneuve, 1932:241.

Diagnosis: Eye bare; fronto-orbital plate in male with long proclinate setae, about as long as frontal setae; parafacial bare; aristal trichia 1.1–3.7 times as wide as maximum diameter of arista; proepisternum setose; cell r_{4+5} open; hind tibia with 3 preapical dorsal setae; abdominal syntergite 1+2 without medium marginal setae; middorsal depression on abdominal syntergite 1+2 extending back to hind margin; abdominal tergites without median discal setae; shiny black around marginal setae basally.

Material examined: 29♂♂, 7♀♀, Latehdar, 33°59′39.1″N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian.

Distribution: ASIA: Armenia, Turkey. EUROPE: Greece. **New record for Iran.**

Zeuxia zernyi Mesnil, 1963

Peyritschia erythraea Villeneuve, 1933:210; *Zeuxia mera* Kolomiets, 1971:51.

Diagnosis: Eye bare; fronto-orbital plate in male with long proclinate setae, about as long as frontal setae; face convex, well visible in lateral view; parafacial bare; postpedicel at least 1.2 times as long as pedicel; aristal trichia 1.1–3.7 times as wide as maximum diameter of arista; proepisternum bare; cell

r_{4+5} open; abdominal syntergite 1+2 without medium marginal setae; middorsal depression on abdominal syntergite 1+2 extending back to hind margin; abdominal tergites 2–4 reddish-orange laterally; abdominal tergites with median and lateral discal setae, male surstylus broad and lobiform as in plate 3 Fig. 14 in Cerretti (2006).

Material examined: 1♂, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi.2018, 2090 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Western Siberia, Kazakhstan. EUROPE: Western Russia, Ukraine, Italy, Switzerland, France, Spain, Portugal. **New record for Iran.**

Tribe Dufouriini Robineau-Desvoidy, 1830

Genus *Pandelleia* Villeneuve, 1907

Diagnosis: Eye bare; frons of male at most 1/3 times as wide as an eye viewed dorsally, without proclinate orbital setae; arista bare; posteroventral half of head with black setulae; prosternum bare; scutellum yellow; postmetacoxal area membraneous; wing cell r_{4+5} with petiole; legs predominantly yellow; abdomen covered with equally sized setae, tergites 2–4 each with a pair of dark spots near posterior margin; middorsal depression on abdominal syntergite 1+2 not extending back to hind margin of that segment; ovipositor of female tube-like, bent below the abdomen; body length less than 6 mm.

Remark: This genus is newly recorded from Iran.

Pandelleia albipennis Villeneuve, 1934 (Fig. 3B)

Diagnosis: Gena in male 1/4 times and in female 1/3 times as long as maximum diameter of eye; parafacial 2/3–3/4 times as wide as postpedicel; mid femur with 1–2 median setae anteriorly; abdominal syntergite 1+2 without median marginal setae.

Material examined: 12♂♂ 8♀♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 1.vi–20.vii.2018, 2090 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 10♂♂ 12♀♀, Sibak valley, 34°08′06.5″N, 50°10′59.0″E, 10.vi.2018, 1812 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Israel (Villeneuve, 1934). **New record for Iran.**

Tribe Voriini Townsend, 1912

Genus *Athrycia* Robineau-Desvoidy, 1830

Athrycia trepida (Meigen, 1824)

Tachina trepida Meigen, 1824:300. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 1♂ 1♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 1.vi–20.vii.2018, 2090 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 8♂♂, Chekab valley, 34°08′07.2″N 50°15′56.1″E, 11.vi.2018, 2090 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi; 1♂ 1♀, Kaftar khoon valley, 34°06′49.0″N, 50°16′48.6″E, 15.vii.2018, 2203 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 1♂ 1♀, Kaftar Khoon valley, 34°08′05.3″N, 50°16′25.3″E, 2.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂ Sibak valley, 34°05′40.0″N 50°14′35.3″E, 18.iii–17.iv.2018, 2094 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Japan, Russian Far East, China, Mongolia, Siberia, Turkmenistan, Iran, Transcaucasia, Israel, Turkey. EUROPE: widespread in all main parts of Europe.

Genus *Cyrtophloeba* Rondani, 1856

Cyrtophloeba ruricola (Meigen, 1824)

Tachina ruricola Meigen, 1824:299. [For further synonyms see Herting & Dely-Draskovits (1993). The widely used spelling "*Cyrtophleba*" is an incorrect original spelling of "*Cyrtophloeba*" (O'Hara et al., 2011)].

Material examined: 2♂♂ 4♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Southern Far East of Russia, China, Mongolia, Siberia, Tajikistan, Turkmenistan, Iran, Transcaucasia, Israel, Turkey. EUROPE: widespread in all main parts of Europe.

Genus *Periscepsia* Gistel, 1848

Periscepsia handlirschi (Brauer and Bergenstamm, 1891) (Fig. 3C)

Phorichaeta handlirschii Brauer and Bergenstamm, 1891:356 [also 1891:52].

Diagnosis: Head in male much higher than wide in lateral view; frons distinctly wider than one fronto-orbital plate (especially in male); postpedicel in male 7.5–10 times and in female 3.5–4.0 times as long as pedicel; arista thickened on basal 3/5–3/4; scutellum with basal setae and entirely bare dorsally except for two erect setae.

Material examined: 8♂♂, 2♀♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi–20.vii.2018, 2090 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 4♂♂, Sibak valley, 34°08′06.5″N, 50°10′59.0″E, 10.vi.2018, 1812 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: China, Israel. EUROPE: Italy, Switzerland, France, Spain. NORTH AFRICA: Egypt. Also Oriental Region. **New record for Iran.**

Genus *Voria* Robineau-Desvoidy, 1830

Voria ruralis (Fallén, 1810)

Tachina ruralis Fallén, 1810:265. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 4♂♂ 7♀♀, Latehdar, 33°59′39.1″N, 50°06′56.8″E, 3.vi.2017, 2291 m, swept, leg. E. Gilasian.

Distribution: ASIA: Japan, Southern Far East of Russia, Korean Peninsula, China, Mongolia, Siberia, Central Asia, Iran, Transcaucasia, Israel, Turkey. EUROPE: widespread in all main parts of Europe. Also Afrotropical, Nearctic and Oriental Regions.

Genus *Wagneria* Robineau-Desvoidy, 1830

Diagnosis: Eye bare; lateral vertical setae at least 1/2 times as long as medial vertical setae; arista bare, first aristomere at most as long as wide; parafacial with strong proclinate setae and setulae; prosternum bare; postpronotum with 2 setae or with 3 setae in a straight line, a weak additional anterior seta sometimes placed anteriorly between middle basal seta and inner basal seta; postmetacoxal area membraneous; R_{4+5} usually setose on more than halfway to crossvein r-m; wing cell r_{4+5} with a long petiole.

Remark: This genus is newly recorded from Iran.

Wagneria cunctans (Meigen, 1824) (Fig. 3D)

Tachina cunctans Meigen, 1824:419.

Diagnosis: Fronto-orbital plate microtrichose in about anterior 1/2; Palp blackish-brown; scutum shiny black without microtrichosity; proepisternum setose; 2 katepisternal setae present; 2 presutural dorsocentral setae present; costal seta differentiated; setulae on R_{4+5} extending to crossvein r-m; fore claws in male long; middorsal depression on abdominal syntergite 1+2 extending back to hind margin of that segment; abdominal tergites 3 and 4 without discal setae.

Material examined: 5♂♂ 1♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi.2018, 2090 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Israel, Turkey. EUROPE: widespread except for Russia, Scandinavia and British Isles. NORTH AFRICA: Egypt. **New record for Iran.**

Subfamily Exoristinae Robineau-Desvoidy, 1863

Tribe Acemyini Brauer and Bergenstamm, 1889

Genus *Acemya* Robineau-Desvoidy, 1830

Diagnosis: Eye bare; frons of male without proclinate orbital setae, at most 4/5 times as wide as an eye viewed dorsally; postpedicel sharply pointed apically; arista bare, thickened at most on basal 2/5; prosternum bare; abdominal tergite 5 without median discal setae; abdominal sternites exposed, middorsal depression on abdominal syntergite 1 +2 extending back to hind margin.

Remark: This genus is newly recorded from Iran.

Acemya fishelsoni Kugler, 1968 (Fig. 3E)

Diagnosis: fronto-orbital plate with short setae; face 1.7 times longer than wide; frons at its narrowest point in male 0.65–0.80 times and in female 1.0 times as wide as an eye viewed dorsally; scape and pedicel light yellow; vibrissa 0.50–0.75 times as long as face; section of vein M between crossvein dm-cu and bend 0.9–1.2 times as long as shortest distance between bend and wing margin; tibia yellow; syntergite 1+2 without median marginal setae.

Material examined: 13♂♂ 7♀♀, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 2–4 .vi.2017, 2094 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: China, Mongolia, Israel. Also Afrotropical Region. **New record for Iran.**

Acemya pyrrhocera (Villeneuve, 1922)

Acomyia pyrrhocera Villeneuve, 1922:342.

Diagnosis: Fronto-orbital plate with short setae; scape and pedicel light yellow; vibrissa 0.50–0.75 times as long as face; section of vein M between crossvein dm-cu and bend 0.8–1.1 times as long as shortest distance between bend and wing margin in both sexes; leg including tibia dark brown to black with yellow knees; syntergite 1+2 with 2 median marginal setae.

Material examined: 8♂♂, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi–20.vii.2018, 2090 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: China, Mongolia, Eastern Siberia, Tajikistan, Transcaucasia. EUROPE: Italy, France, Spain. Also Afrotropical Region. **New record for Iran.**

Tribe Blondeliini Robineau-Desvoidy, 1863

Genus *Belida* Robineau-Desvoidy, 1863

Diagnosis: Eye bare; fronto-orbital plate in male without proclinate orbital setae; parafacial bare; postpedicel usually at most 2 times as long as pedicel; setulae on posteroventral half of head white; postpronotal setae arranged in a triangle; first supra-alar seta shorter than notopleural setae and shorter than first intra-alar seta; lateral scutellar setae at most 2/3 times as long as subapical setae; fine crossed apical setae usually present; postmetacoxal area membraneous; costal spine as long as crossvein r-m or longer; R_{4+5} setose at least halfway to crossvein r-m; wing cell r_{4+5} open; mid tibia with 2 or more anterodorsal setae; middorsal depression on abdominal syntergite 1+2 not extending back to hind margin of that segment; abdominal tergites 3 and 4 each with median discal setae.

Remark: This genus is newly recorded from Iran.

Belida angelicae (Meigen, 1824) (Fig. 3F)

Tachina angelicae Meigen, 1824:309. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Proepisternum bare; hind tibia with 2 preapical dorsal setae.

Material examined: 2♀♀, Kaftar khoon valley, 34°06′49.0″N, 50°16′48.6″E, 15.vii.2018, 2203 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Northern Far East of Russia, China, Mongolia, Siberia, Transcaucasia, Israel, Turkey. EUROPE: widespread in all main parts of Europe. **New record for Iran.**

Genus *Compsilura* Bouché, 1834

Compsilura concinnata (Meigen, 1824)

Tachina concinnata Meigen, 1824:412. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 1♂, Kaftar khoon valley, 34°06′49.2″N, 50°16′48.6″E, 11.vi–15.vii.2018, 2203 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Japan, Korean Peninsula, China, Siberia, Kazakhstan, Iran, Transcaucasia, Lebanon, Israel, Turkey. EUROPE: widespread in all main parts of Europe. NORTH AFRICA: Egypt, Algeria, Morocco. Also Afrotropical, Nearctic, Oriental and Australasian Regions.

Genus *Erynniopsis* Townsend, 1926

Erynniopsis antennata (Rondani, 1861)

Erynnia antennata Rondani, 1861:109. [For further synonyms see Herting and Dely-Draskovits (1993)].

Material examined: 14♂♂ 12♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, leg. Malaise trap, E. Gilasian & M. Parchami-Araghi; 8♂♂ 10♀♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi–20.vii.2018, 2090 m, leg. Malaise trap, E. Gilasian & M. Parchami-Araghi; 4♂♂ 4♀♀, Sibak valley, 34°08′06.5″N, 50°10′59.0″E, 10.vi.2018, 1812 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Turkmenistan, Iran, Armenia, Israel. EUROPE: Bulgaria, Serbia, Italy, France, Spain. Also Nearctic Region.

Genus *Lomachantha* Rondani, 1859

Diagnosis: Antenna, palp, scutellum, basicosta and legs black; eye setose; frons at most as wide as an eye viewed dorsally; gena at most 1/5 times as long as maximum diameter of eye; postpedicel at most 2 times as long as pedicel; prosternum setose; first supra-alar seta shorter than notopleural setae; scutellum without crossed apical setae, postmetacoxal area membraneous; costal spine as long as or longer than crossvein r-m; mid tibia with 3–4 anterodorsal setae; middorsal depression on abdominal syntergite 1+2 not extending back to hind margin of that segment; abdominal tergites with median discal setae.

Remark: This genus is newly recorded from Iran.

Lomachantha parra Rondani, 1859

Lomachantha braueri Hendel, 1901:199; *Lomachantha hispanica* Mesnil, 1962:773.

Diagnosis: Legs entirely black; fore claws in male long, about 1.5 times as long as fore tarsomere 5.

Material examined: 1♂, Latehdar, 33°59′39.1″N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian.

Distribution: ASIA: Uzbekistan, Transcaucasia. EUROPE: widespread except for Russia, Scandinavia and British Isles. NORTH AFRICA: Morocco. **New record for Iran.**

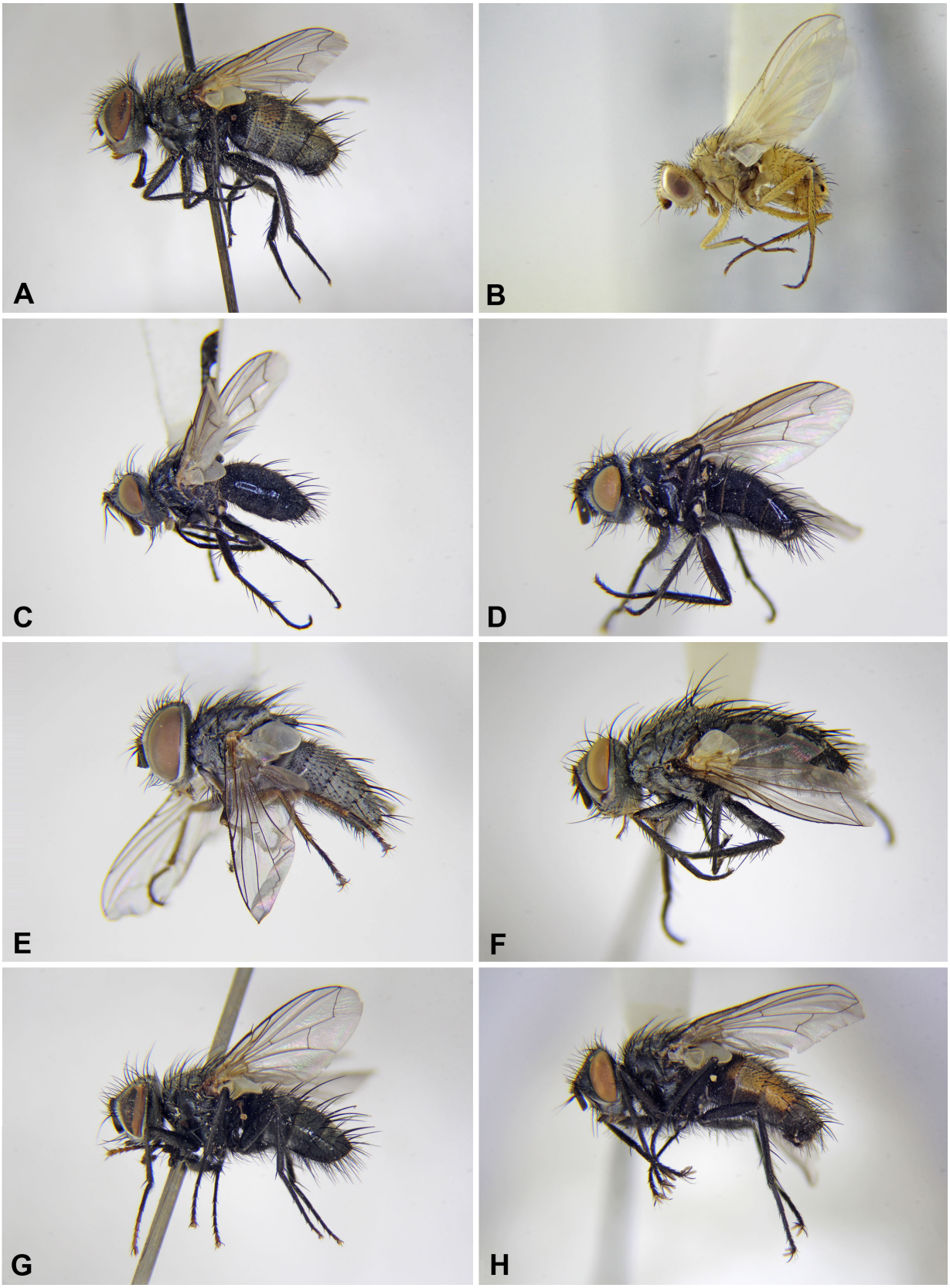

Figure 3. Habitus of some recorded species. Body length in parantheses. **A.** *Zeuxia roederi* (male) (8.3 mm). **B.** *Pandelleia albipennis* (female) (2.6 mm). **C.** *Periscepsia handlirschi* (male) (4.2 mm). **D.** *Wagneria cunctans* (male) (4.7 mm). **E.** *Acemya fishelsoni* (male) (4.2 mm). **F.** *Belida angelicae* (female) (7.9 mm). **G.** *Lomachantha rufitarsis* (male) (6.5 mm). **H.** *Meigenia dorsalis* (male) (6.5 mm)

Lomachantha rufitarsis Villeneuve, 1912 (Fig. 3G)

Diagnosis: Fore tarsus orange; fore claws in male short, about as long as fore tarsomere 5.

Material examined: 1♂, Latehdar, 33°59′39.1″N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian.

Distribution: ASIA: Armenia, Lebanon, Israel. **New record for Iran.**

Genus *Meigenia* Robineau-Desvoidy, 1830

Meigenia dorsalis (Meigen, 1824) (Fig. 3H)

Tachina dorsalis Meigen, 1824:325. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Eyes almost bare, with a few scattered setulae; frons in male 0.35–0.60 times as wide as an eye viewed dorsally; postpedicel in male 1.9–2.5 times and in female 1.8–2.3 times as long as pedicel; face in male 3.3–5.1 times as long as parafacial width at its narrowest point; abdominal tergite 4 usually with only 1 pair of discal setae; cercus and surstylus straight, with long setulae as in Fig. 249 in Tschorsnig & Herting (1994).

Material examined: 12♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 3♂♂, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 2–4.vi.2017, 2094 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Japan, China, Siberia, Kyrgyzstan, Turkmenistan, Transcaucasia, Israel, Turkey. EUROPE: widespread in all main parts of Europe. Also Oriental Region. **New record for Iran.**

Meigenia mutabilis (Fallén, 1810)

Tachina mutabilis Fallén, 1810:273. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Eyes almost bare, with a few scattered setulae; frons in male 0.35–0.60 times as wide as an eye viewed dorsally; postpedicel in male 1.9–2.5 times and in female 1.8–2.3 times as long as pedicel; abdominal tergite 4 usually with only 1 pair of discal setae; cercus slightly bent backwards apically; surstylus slightly bent forwards apically, with short setulae as in Fig. 248 in Tschorsnig & Herting (1994).

Material examined: 4♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 2.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂, Kaftar khoon valley, 34°06′49.0″N, 50°16′48.6″E, 15.vii.2018, 2203 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 4♂♂, Sibak valley, 34°08′06.5″N, 50°10′59.0″E, 10.vi.2018, 1812 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Japan, China, Mongolia, Eastern Siberia, Kazakhstan, Transcaucasia, Israel, Turkey. EUROPE: widespread in all main parts of Europe. **New record for Iran.**

Genus *Istocheta* Rondani, 1859

Istocheta cinerea (Macquart, 1851) (Fig. 4A)

Phorocera cinerea Macquart, 1851:429. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Arista thickened almost to apex; second aristomere 2–4 times as long as wide; 3 presutural acrostichal setae present; distance between 2 subapical scutellar setae 0.50–0.75 times as great as distance between subapical and basal setae; abdominal sternites 3 and 4 in female only about 1/2 as wide as sternite 5.

Material examined: 5♂♂ 6♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 2.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂, Kaftar khoon valley, 34°06′57.8″N, 50°16′50.2″E, 8.vi.2018, 2211 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂ 7♀♀, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 18.iii–17.iv.2018, 2094 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Israel. EUROPE: widespread except for Russia, Scandinavia and British Isles. NORTH AFRICA: Morocco. **New record for Iran.**

Genus *Picconia* Robineau-Desvoidy, 1863

Diagnosis: Gena at least 1/3 times as long as maximum diameter of eye; postpedicel at most four times as long as pedicel; upper part of head with one or more rows of black setulae behind the postocular row; prosternum setose; first supra-alar seta shorter than notopleural setae and shorter than first intra-alar seta; katepisternum with 3 setae; anepimeral seta well-developed; apical scutellar setae divergent or parallel; costal spine as long as crossvein r-m or longer; wing cell r_{4+5} open; abdominal tergites 3 and 4 each with median discal setae; ovipositor of female laterally compressed, without piercer.

Remark: This genus is newly recorded from Iran.

Picconia incurva (Zetterstedt, 1844) (Fig. 4B)

Tachina incurva Zetterstedt, 1844:1063. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Gena about 1/2–2/3 times as long as maximum diameter of eye; postpedicel 2–3 times as long as pedicel; sternite 7 in female laterally compressed as in Fig. 209 in Tschorsnig & Herting (1994).

Material examined: 1♂, Chekab valley, 34°08′05.5″N, 50°15′52.7″E, 1.vi.2017, 2068 m, pan trap near mossy rock, leg. E. Gilasian & M. Parchami-Araghi; 1♀, Latehdar, 33°59′39.1"N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian; 2♀♀, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 18.iii–17.iv.2018, 2094 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Mongolia, Eastern Siberia, Turkmenistan, Transcaucasia, Israel. EUROPE: widespread except for British Isles. **New record for Iran.**

Genus *Zaira* Robineau-Desvoidy, 1830

Zaira cinerea (Fallén, 1810)

Tachina cinerea Fallén, 1810:268. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 12♂♂ 5♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi; 1♂, Latehdar, 33°59′39.1″N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian.

Distribution: ASIA: Japan, Southern Far East of Russia, Korean Peninsula, China, Mongolia, Eastern Siberia, Turkmenistan, Iran, Transcaucasia, Israel, Turkey. EUROPE: widespread in all main parts of Europe.

Tribe Eryciini Robineau-Desvoidy, 1830

Genus *Alsomyia* Brauer and Bergenstamm, 1891

Alsomyia capillata (Rondani, 1859)

Exorista capillata Rondani, 1859:140; *Alsomyia gymnodiscus* Brauer and Bergenstamm, 1891:328; *Alsomyia braueri* Strobl, 1910:129.

Material examined: 12♂♂ 5♀♀, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 2–4.vi.2017, 2094 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi; 4♂♂ 8♀♀, Sibak valley, 34°08′06.5″N, 50°10′59.0″E, 10.vi.2018, 1812 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Kyrgyzstan, Iran (Seyyedi Sahebari et al., 2021), Transcaucasia, Israel. EUROPE: widespread except for Scandinavia and British Isles.

Genus *Amphicestonia* Villeneuve, 1939

Diagnosis: Eye bare; parafacial bare; prosternum setose; scutum with 3 pairs of postsutural dorsocentral setae; first supra-alar seta longer than notopleural setae and longer than first intra-alar seta; katepisternum with 4 setae; scutellum entirely black; fourth wing costal section distinctly shorter than sixth costal section; wing cell r_{4+5} open; hind tarsus of male usually with two rows of strong setulae ventrally; abdominal tergites 3 and 4 without median discal setae; ventral surface of abdominal tergite 4 of male concave, with a patch of fluffy setulae on each side.

Remark: This genus is newly recorded from Iran.

Amphicestonia dispar Villeneuve, 1939 (Fig. 4C)

Diagnosis: Frons narrower than an eye viewed dorsally; postpronotum with 2 strong and 1 weak inner seta; hind tarsus with long setae; abdominal tergite 4 concave ventrally, covered with a sexual patch of very long and fluffy setulae; a strong keel between the two sexual patches present.

Material examined: 3♂♂, Latehdar, 33°59′39.1″N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian.

Distribution: ASIA: Tajikistan, Turkmenistan, Israel, Turkey. EUROPE: Greece. NORTH AFRICA: Tunisia, Morocco. **New record for Iran.**

Genus *Aplomya* Robineau-Desvoidy, 1830

Aplomya confinis (Fallén, 1820)

Tachina confinis Fallén, 1820:32. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 1♂, Kaftar khoon valley, 34°06′55.2″N, 50°16′54.1″E, 1.vi.2017, 2150 m, swept, leg. E. Gilasian.

Distribution: ASIA: Japan, Southern Far East of Russia, Korean peninsula, China, Mongolia, Siberia, Uzbekistan, Iran, Azerbaijan, Israel, Turkey. EUROPE: widespread in all main parts of Europe. NORTH AFRICA: Egypt. Also Oriental and (probably) Afrotropical Region.

Genus *Cadurciella* Villeneuve, 1927

Diagnosis: Eye setose; ocellar setae well-developed; parafacial strongly narrowed ventrally, at its narrowest point at most 1/4 times as wide as postpedicel; upper part of head without black setulae behind the postocular row; prosternum setose; first supra-alar seta longer than notopleural setae and longer than first intra-alar seta; katepisternum with four setae; katepimeron bare; scutellum entirely black; base of R_{4+5} with a single large seta as long as crossvein r-m or longer; abdominal tergites 3 and 4 each with a narrow basal band of microtrichosity, divided medially.

Remark: This genus is newly recorded from Iran.

Cadurciella tritaeniata (Rondani, 1859) (Fig. 4D)

Exorista tritaeniata Rondani, 1859:147.

Diagnosis: Antenna and palp black; postpedicel 3–4 times as long as pedicel; arista long, thickened on basal 1/3; Abdominal tergites 2–4 each with a basal narrow band of microtrichosity, divided medially.

Material examined: 1♀, Kaftar khoon valley, 33°06 55.2″N, 50°16′54.1″E, 1–3.vi.2017, 2175 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Japan, Turkey. EUROPE: widespread in all main parts of Europe. NORTH AFRICA: Egypt. **New record for Iran.**

Genus *Carcelia* Robineau-Desvoidy, 1830

Carcelia dubia (Brauer and Bergenstamm, 1891) (Fig. 4E)

Parexorista dubia Brauer and Bergenstamm, 1891:322 [also 1891:18].

Diagnosis: Frons in male 0.45–0.50 times and in female 0.55–0.72 times as wide as an eye viewed dorsally; face in male shorter than the frons; apical scutellar setae as long and strong as lateral setae; basicosta brownish-black; mid tibia with 2–3 anterodorsal setae, blackish on its basal 1/3 ventrally; posterior narrow margin of abdominal tergites 3 and 4 shiny black; tergite 5 entirely microtrichose. Male genitalia: Epandrium a little wider than long as in Fig. 195 in Tschorsnig & Herting (1994); surstylus and cercus as in Fig. 4 in Herting (1977).

Material examined: 5♂♂ 5♀♀, Latehdar, 33°59′39.1″N, 50°06′56.8″E, 3.vi.2017, 2291 m, swept, leg. E. Gilasian.

Distribution: ASIA: Southern Far East of Russia, China, Mongolia, Western Siberia, Tajikistan, Transcaucasia, Turkey. EUROPE: widespread except for Scandinavia and British Isles. Also Oriental Region. **New record for Iran.**

Genus *Drino* Robineau-Desvoidy, 1863

Drino imberbis (Wiedemann, 1830)

Tachina imberbis Wiedemann, 1830:317; *Masicera minor* (Rondani, 1865):218.

Material examined: 4♂♂ 7♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 2.v–5.vi.2016, 2219 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi; 12♂♂ 3♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 6♂♂ 2♀♀, Kaftar khoon valley, 34°06′49.0″N, 50°16′48.6″E, 15.vii.2018, 2203 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂ 3♀♀, Sibak valley, 34°06′16.1″N, 50°12′54.4″E, 2.vi.2017, 1972 m, swept, E. Gilasian.

Distribution: ASIA: Afghanistan, Turkmenistan, Iran, Lebanon, Israel, Turkey. EUROPE: Italy, Canary Islands, Madeira. NORTH AFRICA: Egypt, Morocco. Also Afrotropical Region.

Genus *Erycia* Robineau-Desvoidy, 1830

Diagnosis: Eye bare; ocellar setae well-developed; fronto-orbital plate in male without proclinate orbital setae; parafacial bare; facial ridge with recumbent setae at most on lower half; arista thickened on basal half or less; prosternum setose; first supra-alar seta longer than notopleural setae and longer than first intra-alar seta; scutellum more or less red or yellow; lateral scutellar setae usually distinctly shorter than subapical setae; apical scutellar setae crossed; wing cell r_{4+5} open; mid tibia with at least 3 anterodorsal setae; abdominal tergites 3 and 4 without median discal setae; abdominal tergite 5 in female usually distinctly longer than tergite 4, sometimes conically pointed.

Remark: This genus is newly recorded from Iran.

Erycia festinans (Meigen, 1824) (Fig. 4F)

Tachina festinans Meigen, 1824:384

Diagnosis: Male: frons 0.89–1.07 times as wide as an eye viewed dorsally; lateral vertical setae not differentiated; basicosta yellow at the posterior edge, rarely completely black; abdominal tergites dorsally almost entirely microtrichose except for a narrow blackish posterior margin and ventrally with only a narrow anterior band of microtrichosity; tergite 3 with 2–4 marginal setae; tergite 4 without discal setae. Female: Frons 1.20–1.33 times as wide as an eye viewed dorsally; basicosta mostly yellowish-orange; abdomen entirely microtrichose, without discal setae; abdominal tergite 5 1.50–1.78 times as long as tergite 4.

Material examined: 7♂♂ 6♀♀, Azna, 33°59′39.1″N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian.

Distribution: ASIA: China, Eastern Siberia, Turkey. EUROPE: widespread except for British Isles. **New record for Iran.**

Genus *Phryxe* Robineau-Desvoidy, 1830

Phryxe prima (Brauer and Bergenstamm, 1889)

Ceratochaeta prima Brauer and Bergenstamm, 1889:92, 165 [also 1890:24, 97].

Material examined: 8♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vii.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂ 1♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi; 3♂♂ 2♀♀, Sibak valley, 34°08′06.5″N, 50°10′59.3″E, 10.vi.2018,1872 m, swept, leg. E. Gilasian.

Distribution: ASIA: Afghanistan, Tajikistan, Uzbekistan, Iran, Transcaucasia, Lebanon, Israel, Turkey. EUROPE: widespread except for Russia, Scandinavia and British Isles.

Genus *Pseudoperichaeta* Brauer and Bergenstamm, 1889

Pseudoperichaeta palesioidea (Robineau-Desvoidy, 1830) (Fig. 4G)

Phryxe palesioidea Robineau-Desvoidy, 1830:160. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Frons in male 1.08–1.44 times and in female 1.04–1.32 times as wide as an eye viewed dorsally; parafacial at the narrowest point 2/5–3/4 as wide as postpedicel; mid tibia with 2–3 anterodorsal setae; section of vein M between dm-cu and bend 1.0–1.5 times as long as minimum distance between bend and wing margin; male genitalia as in plate 10 Fig. 7 in Cerretti (2006).

Material examined: 18♂♂ 9♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi; 4♂♂ 5♀♀, Sibak valley, 34°08′06.5″N, 50°10′59.3″E, 10.vi.2018, 1872 m, swept, leg. E. Gilasian.

Distribution: ASIA: China, Mongolia, Western Siberia, Central Asia, Transcaucasia, Israel, Turkey. EUROPE: widespread except for British Isles. **New record for Iran.**

Tribe Exoristini Robineau-desvoidy, 1863

Genus *Exorista* Meigen, 1803

Exorista nova (Rondani, 1859)

Thricolyga nova Rondani, 1859:187; *Marsillia collina* (Rondani, 1861):117; *Thrycolyga minima* (Rondani, 1865):209.

Material examined: 2♂♂, Sibak valley, 34°08′06.0″N, 50°10′59.0″E, 16.vi–15.vii.2018, 1872 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Afghanistan, Tajikistan, Uzbekistan, Iran, Transcaucasia, Lebanon, Israel, Turkey. EUROPE: widespread except for Russia, Scandinavia and British Isles. NORTH AFRICA: Algeria, Morocco.

Genus *Phorocera* Robineau-Desvoidy, 1830

Diagnosis: Eye setose; ocellar setae arising behind anterior ocellus; second aristomere less than 3 times as long as wide; upper part of head with a more or less complete row of black setulae behind the postocular row; prosternum setose; first supra-alar seta shorter than notopleural setae and shorter than first intra-alar seta; scutum with 3 pairs of postsutural dorsocentral setae; apical scutellar setae crossed, sometimes hair-like; wing membrane creased for a short distance distal to bend of M, appearing from above as a stub or continuation of M; outer margin of lower calypter not exceptionally convex; syncercus of male spatulate in posterior view; sternite 6 of female V-like.

Remark: This genus is newly recorded from Iran.

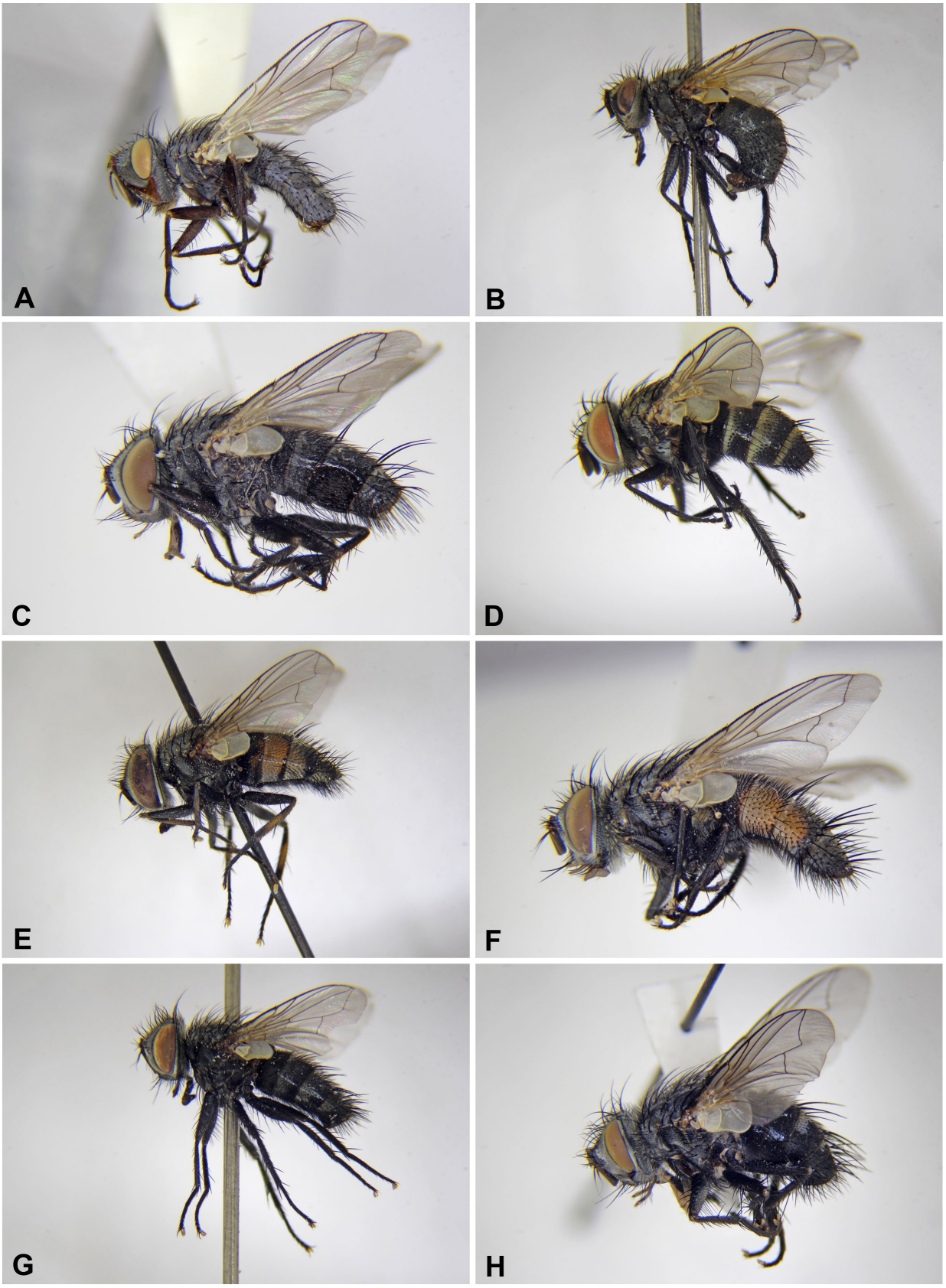

Figure 4. Habitus of some recorded species. Body length in parantheses. **A.** *Istocheta cinerea* (male) (7 mm). **B.** *Picconia incurva* (female) (6.7 mm). **C.** *Amphicestonia dispar* (male) (5.5 mm). **D.** *Cadurciella tritaeniata* (female) (6 mm). **E.** *Carcelia dubia* (male) (8.7 mm). **F.** *Erycia festinans* (male) (8.7 mm). **G.** *Pseudoperichaeta palesioidea* (male) (6.8 mm). **H.** *Phorocera atricans* (female) (9 mm).

Phorocera atricans Tschorsnig, 1992 (Fig. 4H)

Diagnosis: Forth costal section of wing almost entirely setose; posterior 2/3–3/4 of abdominal tergites black; male epandrium short, about 1/2 times as long as abdominal tergite 5; male syncercus and female sternite 6 as in Figs 1a and 2a in Tschorsnig (1992) respectively.

Material examined: 1♂ 5♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Israel (Ziegler, 2011). EUROPE: Spain (Tschorsnig, 1992). **New record for Iran**.

Tribe Goniini Lioy, 1864

Genus *Brachicheta* Rondani, 1861

Brachicheta petiolata Mesnil, 1953 (Fig. 5A)

Material examined: 4♂♂ 1♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi.2018, 2090 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi; 4♂♂, Kaftar khoon valley, 34°06′57.8″N, 50°16′50.2″E, 8.vi.2018, 2211 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 1♂, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 18.iii–17.iv.2018, 2094 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Iran, Azerbaijan, Armenia, Israel, Turkey.

Brachicheta strigata (Meigen, 1824)

Tachina strigata Meigen, 1824:375. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Frons in male about 2 times as wide as an eye viewed dorsally; gena in male 3/5 times as long as maximum diameter of eye; wing cell R_{4+5} closed at wing margin; section of vein M between crossveins r-m and dm-cu distinctly longer than section between dm-cu and bend of M.

Material examined: 2♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Azerbaijan, Armenia, Georgia. EUROPE: widespread in all main parts of Europe. **New record for Iran**.

Genus *Elodia* Robineau-Desvoidy, 1863

Diagnosis: Eye bare; gena 1/6 times as long as maximum diameter of eye or more, at least as wide as parafacial at level of base of antenna; parafacial bare, not strongly narrowed ventrally; facial ridge with usually erect setae on lower 3/5 or more; prosternum setose; first supra-alar seta longer than notopleural setae and longer than first intra-alar seta, wing cell r_{4+5} open; section of vein M between crossveins r-m and dm-cu about equal to section between dm-cu and bend of M, the latter section as long as or longer than section between bend and apex of M; R_{4+5} setose basally; tegula usually black; middorsal depression on abdominal syntergite 1+2 extending back to hind margin of that segment.

Remark: This genus is newly recorded from Iran.

Elodia ambulatoria (Meigen, 1824) (Fig. 5B)

Tachina ambulatoria Meigen, 1824:407. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Postpedicel 5–6 times as long as pedicel; scutum with 3+4 dorsocentral setae; scutellum without apical setae, with erect setulae dorsally; abdomen black, tergites 2–4 each with an anterior band of whitish microtrichosity.

Material examined: 4♂♂ 1♀, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 2–4.vi.2017, 2094 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: China, Mongolia, Transcaucasia, Israel. EUROPE: widespread in all main parts of Europe. **New record for Iran**.

Genus *Gaedia* Meigen, 1838

Gaedia distincta Egger, 1861

Material examined: 4♂♂ 5♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 9♂♂ 3♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Western Siberia, Central Asia, Iran, Transcaucasia. EUROPE: widespread except for Scandinavia and British Isles.

Genus *Gonia* Meigen, 1803

Gonia picea (Robineau-Desvoidy, 1830) (Fig. 5C)

Spallanzania picea Robineau-Desvoidy, 1830:78. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Head and abdomen with whitish microtrichosity; parafacial at the narrowest point in male 0.52–0.72 times and in female 0.65–0.86 times as wide as face; hind tibia in female with an irregular row of anterodorsal setae, with at least 2 setae distinctly longer than others; abdomen entirely black; middorsal depression on abdominal syntergite 1+2 extending back to hind margin; abdominal tergite 5 with a basal band of microtrichosity.

Material examined: 5♂♂ 6♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂ 2♀♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi.2018, 2090 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Northern Far East of Russia, Japan, North Korea, China, Siberia, Turkmenistan, Transcaucasia, Israel, Turkey. EUROPE: widespread in all main parts of Europe. Also Oriental Region. **New record for Iran**.

Genus *Masicera* Macquart, 1834

Masicera sphingivora (Robineau-Desvoidy, 1830)

Phryxe sphingivora Robineau-Desvoidy, 1830:164. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 2♂♂ 3♀♀, Sibak valley, 34°08′06.5″N, 50°10′59.3″E, 10.vi.2018, 1872 m, swept, leg. E. Gilasian.

Distribution: ASIA: Northern Far East of Russia (Ziegler & Shima, 1996), Japan, Southern Far East of Russia, Mongolia, Siberia, Kazakhstan, Kyrgyzstan, Iran, Armenia, Georgia, Israel, Turkey. EUROPE: widespread except for Scandinavia and British Isles.

Genus *Pales* Robineau-Desvoidy, 1830

Pales murina Mesnil, 1970

Material examined: 1♂ 3♀♀, Azna, 33°59′39.1″N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian; 12♀♀, Chekab valley, 34°08′05.5″N, 50°15′52.7″E, 1.vi.2017, 2068 m, pan trap near mossy rock, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: China, Iran. Also Oriental Region.

Genus *Palesisa* Villeneuve, 1929

Diagnosis: Eye bare; ocellar setae proclinate; parafacial bare; facial ridge with usually erect setae on lower 3/5 or more; postpedicel less than 4 times as long as pedicel; arista thickened at most on basal half, second aristomere 1–2.5 times as long as wide; prementum at most 2 times as long as wide; prosternum setose; first supra-alar seta longer than notopleural setae and longer than first intra-alar seta; scutellum with crossed apical setae, without erect preapical setulae; lateral scutellar setae absent or hair-like; wing cell r_{4+5} open; tegula black.

Remark: This genus is newly recorded from Iran.

Palesisa aureola Richter, 1974

Diagnosis: Frons about 0.7 times as wide as an eye viewed dorsally; frontal vitta parallel-sided, with same width on its anterior and posterior portion; postpedicel about 3 times as long as pedicel; arista thickened on about basal 1/4; basicosta orange; section of vein M between crossvein dm-cu and bend almost as long as shortest distance between bend and wing margin; abdominal syntergite 1+2 with 1 pair of median marginal setae; tergites 3 and 4 orange laterally; cerci in male distinctly shorter than surstyli.

Material examined: 1♂, Sibak valley, 34°08′06.5″N, 50°10′59.0″E, 10.vi.2018, 1812 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: China, Mongolia, Western Siberia, Israel. **New record for Iran**.

Genus *Platymya* Robineau-Desvoidy, 1830

Diagnosis: Eye setose; parafacial bare, at its narrowest point about 1/4 times as wide as parafacial at base of antenna; arista thickened on at most basal half; upper part of head with at least 1 row of black setulae behind the postocular row; scutum before suture with 4 dark longitudinal stripes; postpronotal setae arranged in a more or less straight line; scutellum entirely black, with crossed apical setae; katepisternum with three setae; katepimeron bare; wing cell r_{4+5} without petiole; fourth costal section about as long as sixth costal section, but if longer, then scutum with 3 pairs of postsutural dorsocentral setae; abdominal tergites 3 and 4 each with one pair of median discal setae.

Remark: This genus is newly recorded from Iran.

Platymya antennata (Brauer and Bergenstamm, 1891) (Fig. 5D)

Parexorista antennata Brauer and Bergenstamm, 1891:325 [also 1891:21]. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Postpedicel in male 1.25–1.90 times and in female 1.40–1.65 times as long as pedicel; scutum with 3 postsutural dorsocentral setae; inner margin of the lower calyper whitish; abdominal tergites 4 and 5 in male each with a pair of dense patches of setae ventrally.

Material examined: 14♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi; 1♂, Kaftar khoon valley, 34°06′55.2″N, 50°16′54.1″E, 1.vi.2017, 2150 m, swept, leg. E. Gilasian; 2♂♂ 2♀♀, Sibak valley, 34°06′16.1″N, 50°12′54.4″E, 2.vi.2017, 1972 m, swept, leg. E. Gilasian.

Distribution: ASIA: China, Western Siberia, Turkmenistan, Armenia, Israel, Turkey. EUROPE: Bulgaria, Macedonia, Croatia, Slovenia, Italy, France. NORTH AFRICA: Morocco. **New record for Iran**.

Genus *Ramonella* Kugler, 1980

Diagnosis: Eye bare; fronto-orbital plate with 1 reclinate upper orbital seta; facial ridge setose on lower 1/5 or less; arista thickened on basal 4/5 or more; upper part of head with 1 or 2 rows of black setulae behind the postocular row; prosternum setose; scutum with 4 pairs of postsutural dorsocentral setae; second costal section of wing with setulae ventrally; wing cell r_{4+5} with a long petiole; costal seta, if present, distinctly shorter than crossvein r-m; hind tibia with two dorsal preapical setae; abdomen shiny black, without microtrichosity or at most with traces of microtrichosity along anterior margins of tergites.

Remark: This monotypic genus is newly recorded from Iran.

Ramonella mesnili (Kugler, 1980) (Fig. 5E)

Ramona mesnili Kugler, 1980:41.

Material examined: 1♀, Azna, 34°01′20.3″N, 50°03′54.0″E, 14.viii.2018, 2149 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂ 2♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 2.v–15.vi.2016, 2219 m,

Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 3.v–3.vi.2017, 2219 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi; 1♂ Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Israel, Turkey. EUROPE: Canary Islands. NORTH AFRICA: Egypt. Also Afrotropical Region. **New record for Iran**.

Genus *Simoma* Aldrich, 1926

Diagnosis: Eye bare; ocellar setae fine; facial ridge with setae on lower 1/3; prosternum setose; postpronotum with 4 setae; scutum with 3 pairs of postsutural dorsocentral setae; scutellum entirely black; second costal section of wing bare ventrally; wing cell r_{4+5} with petiole; section of vein M between crossveins r-m and dm-cu distinctly longer than section between dm-cu and bend of M; basicosta black or dark brown; abdomen with broad transverse bands of microtrichosity; abdominal tergite 5 distinctly shorter than tergite 4.

Remark: This monotypic genus is newly recorded from Iran.

Simoma grahami Aldrich, 1926 (Fig. 5F)

Material examined: 1♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Japan, China, Israel. Also Afrotropical and Oriental Regions. **New record for Iran**.

Tribe Thrixionini Townsend, 1913

Genus *Thrixion* Brauer and Bergenstamm, 1889

Diagnosis: Frontal vitta present; arista thickened at most on basal 1/2; second aristomere at most as long as wide; palp present; posteroventral half of head with predominantly white setulae; upper part of head bare behind the postocular row; prosternum bare; two intra-alar setae present, separated from each other by a wide distance; anepimeral seta present; vein M not reaching wing margin; R_{4+5} setose at least halfway to crossvein r-m; crossvein dm-cu absent; abdominal syntergite 1+2 with 1 pair of strong median marginal setae, its middorsal depression extending back to hind margin of that segment.

Remark: This genus is newly recorded from Iran.

Thrixion pilifrons Mesnil, 1963 (Fig. 5G)

Diagnosis: Fronto-orbital plate with 1 row of setae; scape and pedicel orange; tibiae and femora orange; abdominal tergites orange laterally.

Material examined: 1♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi–20.vii.2018, 2090 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Tajikistan (Mesnil, 1963). **New record for Iran**.

Tribe Winthemiini Townsend, 1913

Genus *Nemorilla* Rondani, 1856

Nemorilla maculosa (Meigen, 1824)

Tachina maculosa Meigen, 1824:265. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 2♀♀, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 2–4.vi.2017, 2094 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Japan, Southern Far East of Russia, South Korea, China, Mongolia, Eastern Siberia, Afghanistan, Uzbekistan, Turkmenistan, Iran, Azerbaijan, Israel, Turkey. EUROPE: widespread except for British Isles. NORTH AFRICA: Tunisia, Morocco. Also Oriental Region.

Genus *Rhaphiochaeta* Brauer & Bergenstamm, 1889

Diagnosis: Eye setose; arista about as long as postpedicel, thickened on basal 4/5 or more; prosternum setose; first supra-alar seta longer than notopleural setae and longer than first intra-alar setae; postpronotum with 5 setae, the 3 strongest setae arranged in a triangle; katepimeron setose; outer margin of lower calypter not exceptionally convex; hind tibia with 3 strong dorsal preapical setae; middorsal depression on abdominal syntergite 1+2 extending back to hind margin.

Remark: This monotypic genus is newly recorded from Iran.

Rhaphiochaeta breviseta (Zetterstedt, 1838) (Fig. 5H)

Tachina breviseta Zetterstedt, 1838:645. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 2♀♀, Kaftar khoon valley, 34°06′57.8″N, 50°16′50.2″E, 8.vi.2018, 2211 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Southern Far East of Russia, Eastern Siberia, Transcaucasia. EUROPE: widespread in all main parts of Europe. **New record for Iran**.

Genus *Winthemia* Robineau-Desvoidy, 1830

Winthemia quadripustulata (Fabricius, 1794)

Musca quadripustulata Fabricius, 1794:324. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 1♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Russian Far East, China, Mongolia, Siberia, Kyrgyzstan, Transcaucasia, Turkey. EUROPE: widespread in all main parts of Europe. Also Nearctic and Oriental Regions. **New record for Iran.**

Subfamily Phasiinae Robineau-Desvoidy, 1830

Tribe Catharosiini Townsend, 1936

Genus *Catharosia* Rondani, 1868

Catharosia claripennis Kugler, 1977

Material examined: 4♂♂, Sibak valley, 34°08′06.0″N, 50°10′59.0″E, 16.vi–15.vii.2018, 1872 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Iran (Gilasian et al., 2017), Israel, Turkey. EUROPE: Italy, France.

Catharosia flavicornis (Zetterstedt, 1859)

Leucostoma flavicornis Zetterstedt, 1859:6166. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 4♂♂ 2♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂, Latehdar-e bala, 33°56′49.0″N, 50°09′2.9″E, 11.vi–2.ix.2020, 2633 m, Malaise trap, leg. M. Parchami-Araghi; 3♂♂, Sibak valley, 34°08′06.0″N, 50°10′59.0″E, 16.vi–15.vii.2018, 1872 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Mongolia, Eastern Siberia, Iran, Israel. EUROPE: Poland, Sweden, Greece, Croatia, Italy, France, Portugal.

Catharosia pygmaea (Fallén, 1815)

Thereva pygmaea Fallén, 1815:234. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 5♂♂ 4♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 3♂♂ Chekab valley, 34°08′05.3″N 50°16′25.3″E, 30.v–3.vi.2017, 2219 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi; 4♀♀, Latehdar-e bala, 33°56′49.0″N, 50°09′2.9″E, 11.vi–2.ix.2020, 2633 m, Malaise trap, leg. M. Parchami-Araghi.

Distribution: ASIA: China, Eastern Siberia, Iran (Gilasian et al., 2017), Transcaucasia, Israel, Turkey. EUROPE: widespread in all main parts of Europe.

Tribe Cylindromyiini Townsend, 1912

Genus *Besseria* Robineau-Desvoidy, 1830

Besseria zonaria (Loew, 1847)

Actia zonaria Loew, 1847:275. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Vein M not reaching wing margin, lower calyper in dorsal view at most half as wide as scutellum; female abdomen in lateral view as in plate 23 Fig. 8 in Cerretti (2006).

Material examined: 1♀, Sibak valley, 34°08′06.0″N, 50°10′59.0″E, 16.vi–15.vii.2018, 1872 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Mongolia, Kazakhstan, Israel, Turkey. EUROPE: Western Russia, Greece, Croatia, Italy, France, Spain, Portugal. Also Afrotropical Region. **New record for Iran**.

Genus *Cylindromyia* Meigen, 1803

Cylindromyia rufifrons (Loew, 1844)

Ocyptera rufifrons Loew, 1844:232. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 2♂♂, Sibak valley, 34°08′06.0″N, 50°10′59.0″E, 16.vi–15.vii.2018, 1872 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Kyrgyzstan, Tajikistan, Turkmenistan, Iran (Gilasian et al., 2017), Transcaucasia, Turkey. EUROPE: widespread except for Scandinavia and British Isles. Also Afrotropical Region.

Genus *Phania* Meigen, 1824

Phania thoracica Meigen, 1824

Diagnosis: Fronto-orbital plate in female entirely microtrichose; vibrissa about half as long as face; abdomen shiny black; female postabdomen reaches at least to middle of syntergite 1+2 ventrally.

Material examined: 1♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Transcaucasia. EUROPE: widespread in all main parts of Europe. **New record for Iran**.

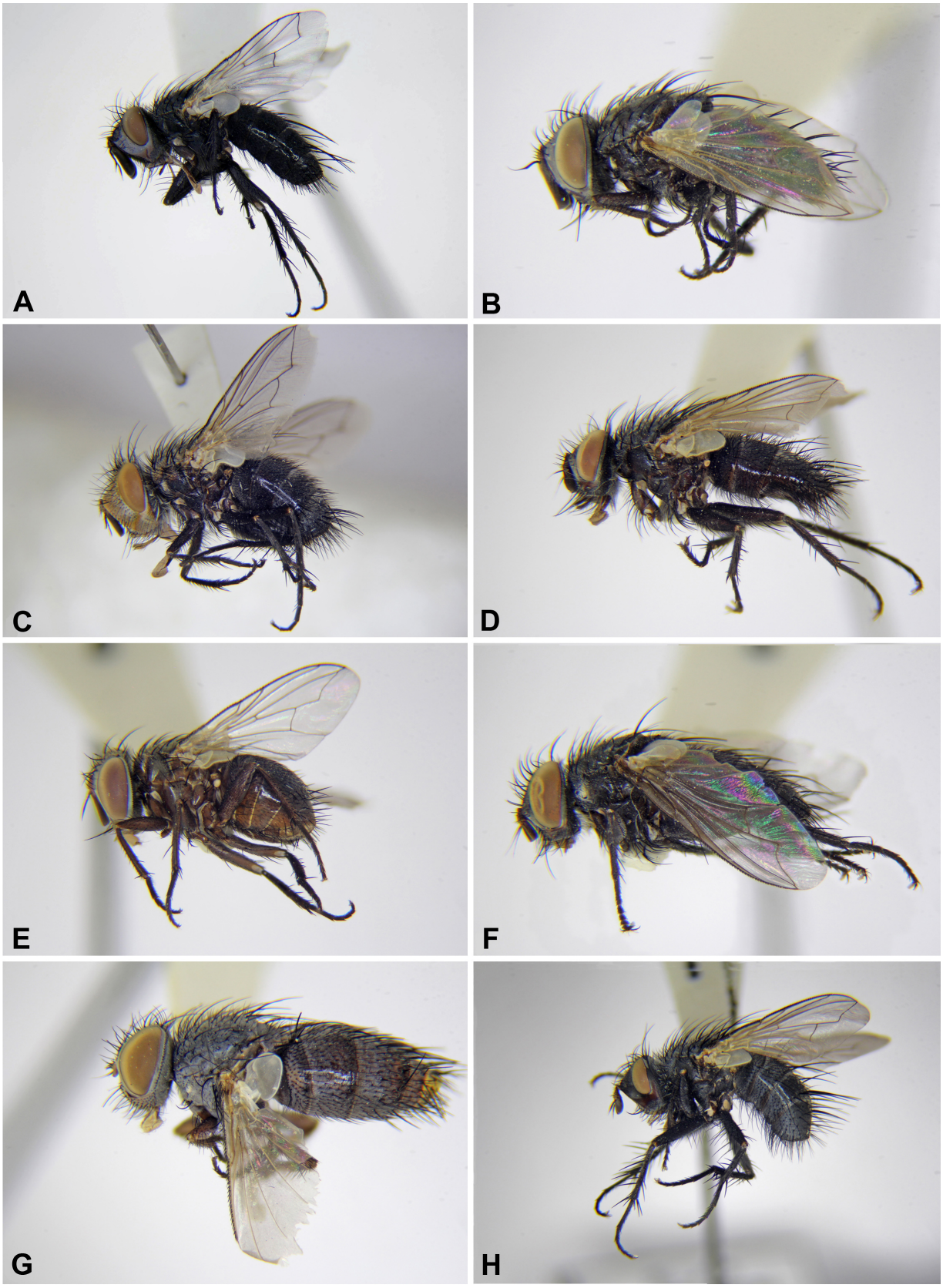

Figure 5. Habitus of some recorded species. Body length in parantheses. **A.** *Brachicheta petiolata* (male) (5.7 mm). **B.** *Elodia ambulatoria* (male) (3.6 mm). **C.** *Gonia picea* (male) (9.6 mm). **D.** *Platymya antennata* (male) (6 mm). **E.** *Ramonella mesnili* (female) (4.7 mm). **F.** *Simomagrahami* (male) (5 mm). **G.** *Thrixion pilifrons* (female) (5.2 mm). **H.** *Rhaphiochaeta breviseta* (female) (7.9 mm).

Tribe Gymnosomatini Macquart, 1834

Genus *Clytiomya* Rondani, 1861

Clytiomya continua (Panzer, 1798)

Musca continua Panzer, 1798:19. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Frons 0.66–0.84 times as wide as an eye viewed dorsally; katepisterum with black setulae.

Material examined: 1♂, Latehdar, 33°59′39.1″N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian.

Distribution: ASIA: Southern Far East of Russia, China, Mongolia, Siberia, Uzbekistan, Turkmenistan, Transcaucasia, Israel, Turkey. EUROPE: widespread except for Scandinavia. **New record for Iran**.

Genus *Ectophasia* Townsend, 1912

Ectophasia crassipennis (Fabricius, 1794)

Syrphus crassipennis Fabricius, 1794:284. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 1♂ 4♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Japan, Southern Far East of Russia, South Korea, China, Siberia, Iran, Transcaucasia, Israel, Turkey. EUROPE: widespread except for Scandinavia and British Isles.

Genus *Gymnosoma* Meigen, 1803

Gymnosoma iranica (Zimin, 1966)

Stylogymnomyia iranica Zimin, 1966:437.

Material examined: 2♂♂ 1♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Iran, Turkey.

Gymnosoma rungsi (Mesnil, 1952)

Rhodogyne rungsi Mesnil, 1952:151.

Material examined: 2♂♂ 5♀♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi–20.vii.2018, 2090 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 11♂♂ 25♀♀, Sibak valley, 34°06′16.1″N, 50°12′54.4″E, 2.vi.2017, 1972 m, swept, leg. E. Gilasian; 1♂, Sibak valley, 34°08′06.0″N, 50°10′59.0″E, 16.vi–15.vii.2018, 1872 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Central Asia, Iran (Gilasian et al., 2017), Transcaucasia, Turkey. EUROPE: widespread except for Scandinavia and British Isles. NORTH AFRICA: Morocco.

Tribe Leucostomatini Townsend, 1908

Genus *Leucostoma* Meigen, 1803

Leucostoma anthracinum (Meigen, 1824)

Tachina anthracina Meigen, 1824:289. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 8♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Mongolia, Eastern Siberia, Iran (Gilasian et al., 2014a), Armenia, Turkey. EUROPE: widespread in all main parts of Europe.

Leucostoma crassum Kugler, 1966

Material examined: 2♂♂, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 2–4.vi.2017, 2094 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Southern Far East of Russia, Iran (Gilasian et al., 2014a), Israel, Turkey. EUROPE: widespread except for Scandinavia and British Isles, but including Canary Islands.

Leucostoma engeddense Kugler, 1966

Material examined: 8♀♀, Chekab valley, 34°08′05.3″ N 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 5♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Iran (Gilasian et al., 2014a), Israel. EUROPE: Cyprus, Bulgaria, Greece, Spain, Portugal, Canary Islands. NORTH AFRICA: Egypt, Algeria. Also Afrotropical Region.

Leucostoma simplex (Fallén, 1815)

Ocyptera simplex Fallén, 1815:240. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 9♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 5♀♀, Sibak valley, 34°06′16.1″N 50°12′54.4″E, 2.vi.2017, 1972 m, swept, leg. E. Gilasian.

Distribution: ASIA: Southern Far East of Russia, China, Mongolia, Siberia, Kazakhstan, Uzbekistan, Iran (Gilasian et al. 2014a), Transcaucasia, Turkey. EUROPE: widespread in all main parts of Europe. Also Afrotropical, Australasian, Nearctic and Neotropical Regions.

Genus *Weberia* Robineau-Desvoidy, 1830

Weberia digramma (Meigen, 1824)

Tachina digramma Meigen, 1824:346. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 1♂, Kaftar khoon valley, 34°06′49.0″N, 50°16′48.6″E, 15.vii.2018, 2203 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Turkmenistan, Iran (Gilasian et al., 2014a), Azerbaijan, Israel, Turkey. EUROPE: widespread except for Russia, Scandinavia and British Isles, but including Canary Islands.

Tribe Phasiini Robineau-Desvoidy, 1830

Genus *Phasia* Latreille, 1804

Phasia subcoleoptrata (Linnaeus, 1767)

Conops subcoleoptrata Linnaeus, 1767:1006. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 2♂♂ 2♀♀, Latehdar, 33°59′39.1″N, 50°06′56.8″E, 3.vi.2017, 2291 m, swept, leg. E. Gilasian.

Distribution: ASIA: Southern Far East of Russia, Eastern Siberia, Kazakhstan, Iran (Gilasian et al., 2013b), Transcaucasia, Syria, Israel. EUROPE: widespread except for British Isles. NORTH AFRICA: Morocco.

Subfamily Tachininae Robineau-Desvoidy, 1830

Tribe Ernestiini Townsend, 1912

Genus *Panzeria* Robineau-Desvoidy, 1830

Panzeria incongruens (Herting, 1975) (Fig. 6A)

Eurithia incongruens Herting, 1975:5.

Diagnosis: Parafacial at most as wide as postpedicel; second aristomere 1.0–1.5 times as long as wide; occiput with black setulae behind postocular row; crossed apical scutellar setae present; anepimeron with 2 setae. Male: Frons 0.40–0.76 times as wide as an eye viewed dorsally; medial vertical setae long and strong, converging and reclinate; prementum 2–3 times as long as wide; mid tibia without ventral seta; abdominal tergite 4 with a complete row of marginal setae; syncercus as in plate 26, Fig. 8 in Cerretti (2006). Female: pedicel almost entirely black; upper fronto-orbital seta lateroclinate.

Material examined: 4♂♂ 7♀♀, Chekab valley, 34°08′05.5″N, 50°15′52.7″E, 1.vi.2017, 2068 m, pan trap near mossy rock, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Mongolia. EUROPE: Czech Republic, Austria, Germany, Switzerland, Italy, France. **New record for Iran.**

Tribe Germariini Brauer and Bergenstamm, 1889

Genus *Germaria* Robineau-Desvoidy, 1830

Germaria angustata (Zetterstedt, 1844) (Fig. 6B)

Gonia angustata Zetterstedt, 1844:1198. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Fronto-orbital plate in male without proclinate setae; ocellar setae lateroproclinate; frontal vitta 1.1 to 2.0 times as wide as one fronto-orbital plate; lower facial margin not visible in lateral view; prementum short, about twice as long as wide; vein R_1 with setulae dorsally; abdominal tergite 5 mostly shining black dorsally, sometimes with a narrow basal greyish band of microtrichosity; small to middle sized species (5.2–9.8 mm).

Material examined: 2♂♂ 3♀♀, Latehdar, 33°59′33.1″N, 50°06′56.8″E, 3.vi.2017, 2291 m, swept, leg. E. Gilasian; 14♂♂ 9♀♀, Latehdar-e bala, 33°56′49.0″N, 50°09′2.9″E, 11.vi–2.ix.2020, 2633 m, Malaise trap, leg. M. Parchami-Araghi.

Distribution: ASIA: China, Mongolia, Southeastern Siberia, Kyrgyzstan. EUROPE: widespread except for southern Europe. Not in Transcaucasia but also in Nearctic Region: Canada (Yukon) (Ziegler, 2010, 2012). **New record for Iran.**

Tribe Graphogastrini Townsend, 1931

Genus *Graphogaster* Rondani, 1868

Graphogaster buccata Herting, 1971 (Fig. 6C)

Diagnosis: Frontal setae descending to midpoint of scape; parafacial bare; lower facial margin well visible in lateral view; palp well developed; scutum with 2 presutural dorsocentral setae; calypter whitish.

Material examined: 8♂♂ 7♀♀, Chekab valley, 34°08′07.2″N, 50°15′56.1″E, 11.vi–20.vii.2018, 2090 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: China, Israel. EUROPE: Finland, Greece, Italy, Germany, Switzerland, France. **New record for Iran.**

Graphogaster vestita Rondani, 1868

Pseudalophora parva (Portschinsky, 1881):282. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 10♂♂ 5♀♀, Sibak valley, 34°08′06.5″N, 50°10′59.0″E, 10.vi.2018, 1812 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Iran, Georgia, Israel, Turkey. EUROPE: Western Russia, Ukraine, Bulgaria, Greece, Croatia, Italy, Spain, Portugal. NORTH AFRICA: Tunisia.

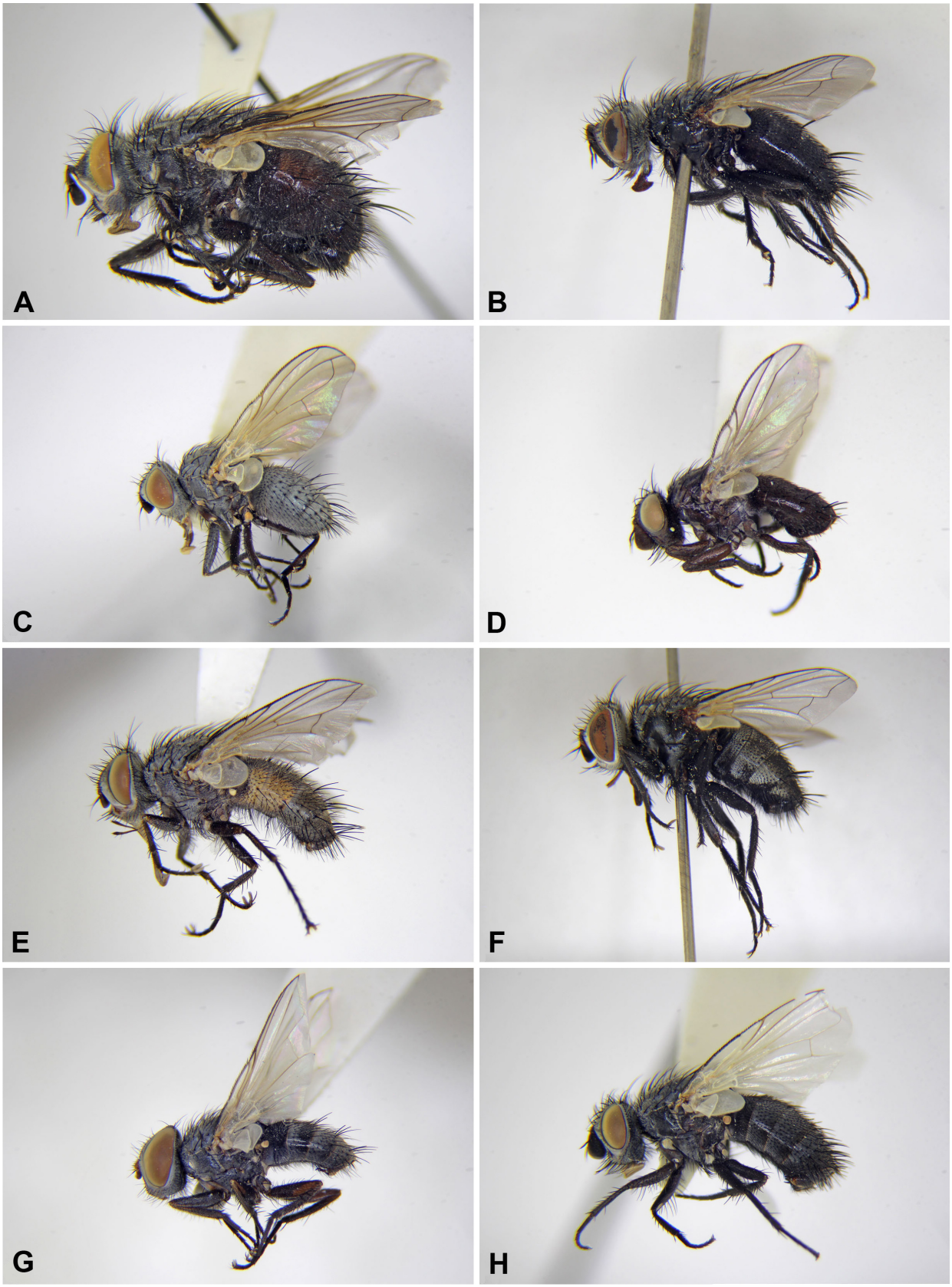

Figure 6. Habitus of some recorded species. Body length in parantheses. **A.** *Panzeria incongruens* (male) (11.5 mm). **B.** *Germaria angustata* (male) (6.5 mm). **C.** *Graphogaster buccata* (female) (3.7 mm). **D.** *Phytomyptera nigrina* (male) (2.6 mm). **E.** *Bithia hermonensis* (male) (5.7 mm). **F.** *Naira montana* (male) (9.3 mm). **G.** *Rossimyiops magnificus* (male) (4.3 mm). **H.** *Neaera laticornis* (male) (4 mm).

Genus *Phytomyptera* Rondani, 1845

Diagnosis: Arista thickened at least on basal 2/3; second aristomere 3–6 times as long as wide; upper part of head with several rows of black setulae behind the postocular row; prosternum with one pair of setae; 3 intra-alar setae present; crossvein dm-cu absent; vein M not reaching wing margin; base of R_{4+5} with a single large seta.

Remark: This genus is newly recorded from Iran.

Phytomyptera nigrina (Meigen, 1824) (Fig. 6D)

Tachina nigrina Meigen, 1824:355. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Gena 0.2–0.3 times as long as maximum diameter of eye; parafacial very narrow; scutellum with distinct lateral setae; crossvein m-cu absent; hind tibia with a row of (6–11) equally sized anterodorsal setae; preapical posterodorsal seta on hind tibia about as long as preapical dorsal seta; surstylus and cercus as in Fig. 13 in Andersen (1988).

Material examined: 2♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 2♂♂ Kaftar khoon valley, 34°06′49.0″N, 50°16′48.6″E, 15.vii.2018, 2203 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 1♂, Sibak valley, 34°08′06.5″N, 50°10′59.0″E, 10.vi.2018, 1812 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Mongolia, Siberia, Tajikistan, Transcaucasia, Israel. EUROPE: widespread in all main parts of Europe. **New record for Iran.**

Tribe Leskiini Townsend, 1919

Genus *Bithia* Robineau-Desvoidy, 1863

Bithia demotica (Egger, 1861)

Tachina demotica Egger, 1861:211. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Frons in male 0.73–0.95 times as wide as an eye viewed dorsally; longest trichia on arista about 2/3 times as long as width of thickened portion of arista; scutellum with crossed apical setae, without lateral setae; vein R_{4+5} with 3–6 setae basally; tegula black; abdomen microtrichose, with irregular spots in different viewing angle; syntergite 1+2 without median marginal setae; male surstylus and syncercus as in Fig. 267 in Tschorsnig & Herting (1994).

Material examined: 1♂, Latehdar, 33°59′33.1″N, 50°06′56.8″E, 3.vi.2017, 2291 m, swept, leg. E. Gilasian.

Distribution: ASIA: China. EUROPE: widespread except for Russia, Scandinavia and British Isles. **New record for Iran.**

Bithia hermonensis Kugler, 1977 (Fig. 6E)

Diagnosis: Frons in male narrower than an eye viewed dorsally; lateral vertical setae in male absent; postpedicel in male 1.5 times as long as pedicel; scutellum with weak and short apical setae; without lateral setae; vein R_{4+5} with setulae basally; syntergite 1+2 with 2 median marginal setae.

Material examined: 2♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 30.v–3.vi.2017, 2219 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi; 5♂♂ Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 1♂, Kaftar khoon valley, 34°06′57.8″N, 50°16′50.2″E, 8.vi.2018, 2211 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Israel (Kugler, 1977). **New record for Iran.**

Genus *Naira* Richter, 1970

Diagnosis: Eye bare; parafacial with a patch of very fine setulae below upper 1/2; occiput with well-developed genal dilation; prosternum bare; 3 intra-alar setae present; wing cell r_{4+5} open; costal spine, if present, at most as long as crossvein r-m; bend of vein M nearly a right angle; mid tibia with 3–5 anterodorsal setae; abdomen uniformly covered with microtrichosity; abdominal tergites 3 and 4 without median discal setae; middorsal depression on abdominal syntergite 1+2 confined to about anterior 7/8 of that segment or more; abdomen of female without pincers.

Remark: This genus is newly recorded from Iran.

Naira montana Richter, 1972 (Fig. 6F)

Diagnosis: Frons in male narrower than an eye viewed dorsally; fronto-orbital plate in male without orbital setae.

Material examined: 1♂, Latehdar, 33°59′39.1″N, 50°06′56.5″E, 13.vi.2018, 2282 m, swept, leg. E. Gilasian.

Distribution: Azerbaijan (Nakhichivan) (Richter, 1972). **New record for Iran.**

Tribe Macquartiini Robineau-Desvoidy, 1830

Genus *Macquartia* Robineau-Desvoidy, 1830

Macquartia praefica (Meigen, 1824)

Tachina praefica Meigen, 1824:271. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 1♂ 7♀♀, Latehdar, 33°59′33.1″N, 50°06′56.8″E, 3.vi.2017, 2291 m, swept, leg. E. Gilasian.

Distribution: ASIA: Iran, Transcaucasia, Israel, Turkey. EUROPE: widespread except for Russia and Scandinavia.

Macquartia tessellum (Meigen, 1824)

Tachina brevicornis (Macquart, 1839):112. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 56♂♂ 73♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 8♂♂ 4♀♀, Kaftar khoon valley, 34°06′57.8″N, 50°16′50.2″E, 8.vi.2018, 2211 m, leg. Malaise trap, E. Gilasian & M. Parchami-Araghi; 14♂♂ 29♀♀, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 18.iii–17.iv.2018, 2094 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: China, Kyrgyzstan, Tajikistan, Turkmenistan, Iran, Transcaucasia, Israel, Turkey. EUROPE: widespread in Southern and Western Europe as well as British Isles. Also Oriental Region.

Tribe Minthoini Brauer & Bergenstamm, 1889

Genus *Magripa* Richter, 1988

Magripa Richter, 1988:206. Type species: *Magripa autumnalis* Richter, 1988.

Diagnosis: Eye bare; parafacial bare; postpedicel exceptionally long, at least 10 times as long as pedicel; arista bare, thickened nearly to apex; prementum short, at most 2 times as long as wide; palpus absent; genal dilation well-developed; anepimeral seta short; scutellum with 2–3 pairs of marginal setae; postmetacoxal area membraneous; costal seta not differentiated; wing cell r_{4+5} closed with long petiole; middorsal depression of syntergite 1+2 not extending to posterior margin of that segment; abdominal syntergite 1+2 without median marginal setae.

Magripa persica Gilasian and Ziegler, sp. nov. (Figs 7A–B, 8A–D)

http://zoobank.org/urn:lsid:zoobank.org:act:19595DCF-FE99-4DBB-9CB4-6A1F853BBFFD

Material examined: **Holotype:** IRAN♂, (glued to a card point), Markazi prov., Arak, Haftad-Qolleh Protected Area, Kaftar khoon valley, 34°06′49.2″N, 50°16′48.6″E, 11.vi–15.vii.2018, 2203 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi (HMIM). **Paratypes:** 1♀, same data as holotype; 1♀ (glued to a card point), Kermanshah prov., Paveh, Dodan, 35°00′25.5″N, 46°12′51.4″E, 5.vi.2016, 1100 m, Malaise trap, leg. M. Zardouei (HMIM); 1♂ 1♀, same data as previous except for deposition (1♂ CZB, 1♀ ZMHB).

Etymology: The name '*persica*' (Latin, adjective, feminine) is derived from *persicus*. This means "persian" and refers to Persia, the historical name of Iran.

Diagnosis: Frons at its narrowest point 1.1–1.2 times as wide as an eye in dorsal view; frontal vitta 0.65–0.85 times as wide as fronto-orbital plate medially; fronto-orbital plate with 1 upper latero-reclinate and 1 outer latero-proclinate orbital setae; lateral vertical seta present, 0.3 times as long as medial vertical seta; first and second aristomeres long, each about 4.5 times as long as wide (Fig. 7B); postpedical about 10 times as long as pedicel; occipital setulae black except for a few pale posteroventral setulae; scutum with 3 pairs of presutural acrostichal setae; scutellum with 3 pairs of marginal setae; fore tibia with 2 posterior, 2–3 anterodorsal and 2–4 posterodorsal setae; vein R_{4+5} with 1 short basal setula dorsally; postsutural portion of scutum with a median vitta extending to scutellum; legs predominantly orange, fore tarsus and about apical 1/3 of fore tibia brown to blackish; surstylus with 2 short spines apically, narrow and straight in apical third in dorsal view.

Description. Male (Fig. 7A). Body length: 5.7 mm. Statements given in square brackets refer to paratype.

Colouration and microtrichosity. Head predominantly brownish-orange, without microtrichosity; frontal vitta, lunula, face, parafacial and gena yellowish-orange; fronto-orbital plate orange with a median shining dark brown or black spot on each side; ocellar triangle dark; upper half of occiput with a shining black band connecting the compound eyes, area behind the ocellar triangle and lower half of occiput orange; occipital setulae black except for a few pale posteroventral setulae; genal setulae black [or entirely absent]; scape, pedicel and arista orange; postpedicel brown; prementum orange; thorax brownish-black, presutural portion of scutum with 2 indistinct black narrow median vittae extending shortly beyond median suture and 2 black triangular lateral vittae (anterior view); postsutural portion of scutum with a median vitta extending to scutellum; posterior 2/3 of katepisternum and posterior 1/3 of anepisternum with whitish microtrichosity; scutellum dark brown to black; wing hyaline; calypters yellowish; tegula and basicosta yellowish-orange; halter orange; legs predominantly orange, fore tarsus and about apical 1/3 of fore tibia brown to blackish; abdomen shiny brown or black; postabdomen mostly brown, surstylus orange.

Head (Fig. 7B). Eye bare; gena with short setulae [or entirely bare]; height of gena about 0.43–[0.45] times as long as maximum diameter of eye in lateral view; face deeply and broadly holed, almost 2.4–[2.7] times as long as frons in lateral view; frons at its narrowest point 1.1–[1.2] times as wide as an eye in dorsal view; frontal vitta 0.65–[0.85] times as wide as fronto-orbital plate medially; medial vertical seta 0.50–[0.55] times as long as maximum diameter of eye; lateral vertical seta present, 0.3 times as long as medial vertical seta; ocellar setae proclinate; postocellar setae absent; frons with 5–[7] frontal setae descending to level of basal portion of postpedicel, laterally accompanied by a row of few short setulae; fronto-orbital plate with 1 upper latero-reclinate and 1 outer latero-proclinate orbital setae; fronto-orbital plate in lateral view at level of scape about 0.25 times as wide as minimum diameter of eye; facial ridge convex, parafacial bare, with 2–3 short setulae below first frontal seta, at its narrowest point 0.14 times as wide as minimum eye diameter and 0.4 times as wide as postpedicel in lateral view; vibrissa arising at level of lower facial margin and almost [0.30]–0.42 times as long as face; lower facial margin not visible in lateral view; postpedicel short pubescent, almost [10]–11.5 times as long as pedicel and about 5–6 times as long as wide at middle; arista bare, thickened nearly to apex; first and second aristomeres long, each about 4.5 times as long as wide; prementum short, about 1.3–[1.5] times as long as wide; palpus absent.

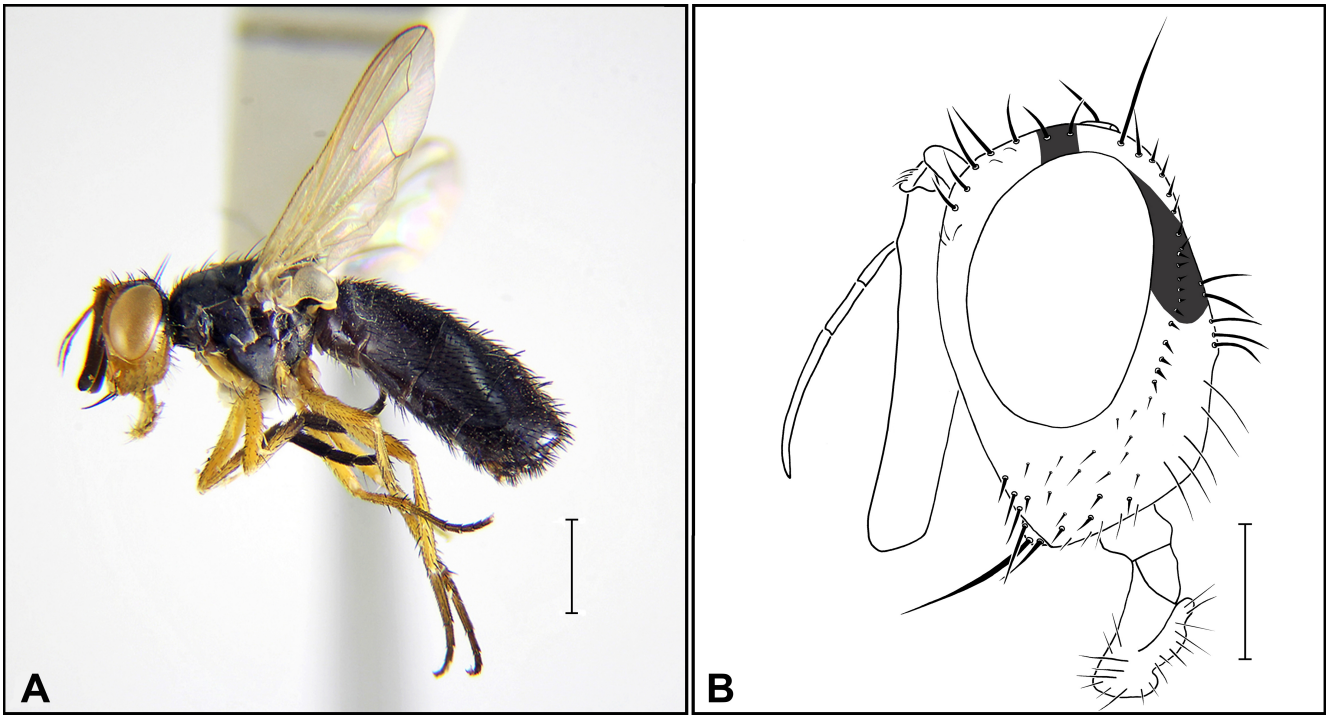

Figure 7. *Magripa persica* Gilasian & Ziegler**, sp. nov.**, holotype (male). **A.** Habitus, lateral view, scale bar: 1 mm. B. Head, lateral view, scale bar: 0.5 mm.

Thorax. Prosternum and proepisternum bare; postpronotum with 2 setae; scutum with 3+4, or less, weak acrostichal, 2+3 dorsocentral, 1 posthumeral + 2 intra-alar setae, intra-alar setae widely separated, 1 presutural + 1 supra-alar setae, first and last supra-alar setae absent; 2 notopleural setae, postalar callus with 2 setae; anatergite bare below calypter; katepimeron bare; katepisternum with 2 setae; anepimeral seta short, postmetacoxal area membranous; scutellum with 3 pairs of marginal setae; apical setae strong, parallel [or slightly divergent], [1.1]–1.2 times as long as scutellum; subapical setae relatively fine, 0.65 times as long as apical setae; lateral setae absent; basal setae nearly as long and strong as apical setae.

Wing. Second costal section bare ventrally; costal seta not differentiated; third costal section [2.4]–2.5 times as long as fourth costal section and nearly [3.2]–3.6 times as long as second costal section; vein R_1 bare; vein R_{4+5} with 1 short basal seta dorsally and ventrally; cell r_{4+5} closed with long petiole, almost [0.7]–0.85 times as long as section of vein M beyond bend; section of vein M between crossveins r-m and dm-cu nearly as long as section between crossvein dm-cu and bend of vein M; bend of vein M forming a right angle without an appendix; crossvein dm-cu almost 5 times as long as crossvein r-m.

Legs. Fore coxa bare on anterior and posterior surfaces; fore tibia with 2 posterior, 2–[3] anterodorsal, [2]–4 posterodorsal setae; preapical anterodorsal seta slightly shorter than preapical dorsal seta; fore tarsomere 1 about twice as long as fore tarsomere 2 and 0.6 times as long as fore tibia; fore tarsomeres 1–4 compressed laterally; fore claws very short, nearly 0.3 times as long as fore tarsomere 5; mid tibia with 2 anterodorsal, 1 posterodorsal, 2 posterior and 1 ventral setae; hind tibia with 4–5 anterodorsal, 4–5 posterodorsal, 1–2 anteroventral and 2 preapical dorsal setae. Preapical posteroventral seta on hind tibia nearly as long as preapical anteroventral seta.

Abdomen. Abdomen cylindrical; middorsal depression of syntergite 1+2 not extending to posterior margin of that segment; tergites 1–4 without median marginal and median discal setae; syntergite 1+2 with 3–4 lateral discal and with [0]–2 lateral marginal setae; tergite 3 about 0.75 times as long as wide; tergite 5 almost as long as tergite 4, with short median discal setae and with a row of short marginal setae; sternites 2 and 3 long and narrow, largely covered by lateral margins of tergites. **Terminalia**. Sternite 5 rectangular, with a narrow median apical cleft (Fig. 8C); surstylus shorter than syncercus and

with 2 short spines apically; surstylus narrow and straight in apical third in dorsal view; syncercus slightly bent apically in lateral view (Figs 8A–B); aedeagal complex as in Fig. 8D.

Female. Differs from male as follows: postpedicel narrower; frons with only 4 frontal setae, lateral vertical seta 0.5 times as long as medial vertical seta; genal setae reduced; vein R_{4+5} with 3–5 short basal seta dorsally.

Key to the *Magripa* species (see also remarks in Discussion section):

– Postpedicel about 15 times as long as pedicel; first aristomere almost 2 times as long as wide (as in Fig. 41 in Tschorsnig & Richter (1998); scutum with 1–2 pairs of presutural acrostichal setae; scutellum with 2 pairs of marginal setae; tegula dark brown; vein R_{4+5} with 4–5 setulae dorsally; fore tibia with 2 preapical anterodorsal setae; male surstylus in dorsal view as in Fig. 2 in Richter (1988) ..... *M. autumnalis* Richter

– Postpedicel about 10 times as long as pedicel; first aristomere almost 4.5 times as long as wide (Fig. 7B); scutum with 3 pairs of presutural acrostichal setae; scutellum with 3 pairs of marginal setae; tegula yellowish-orange; vein R_{4+5} with 1 setula dorsally; fore tibia with 1 preapical anterodorsal seta; male surstylus in dorsal view as in Fig. 8A..... *M. persica* Gilasian & Ziegler **sp. nov.**

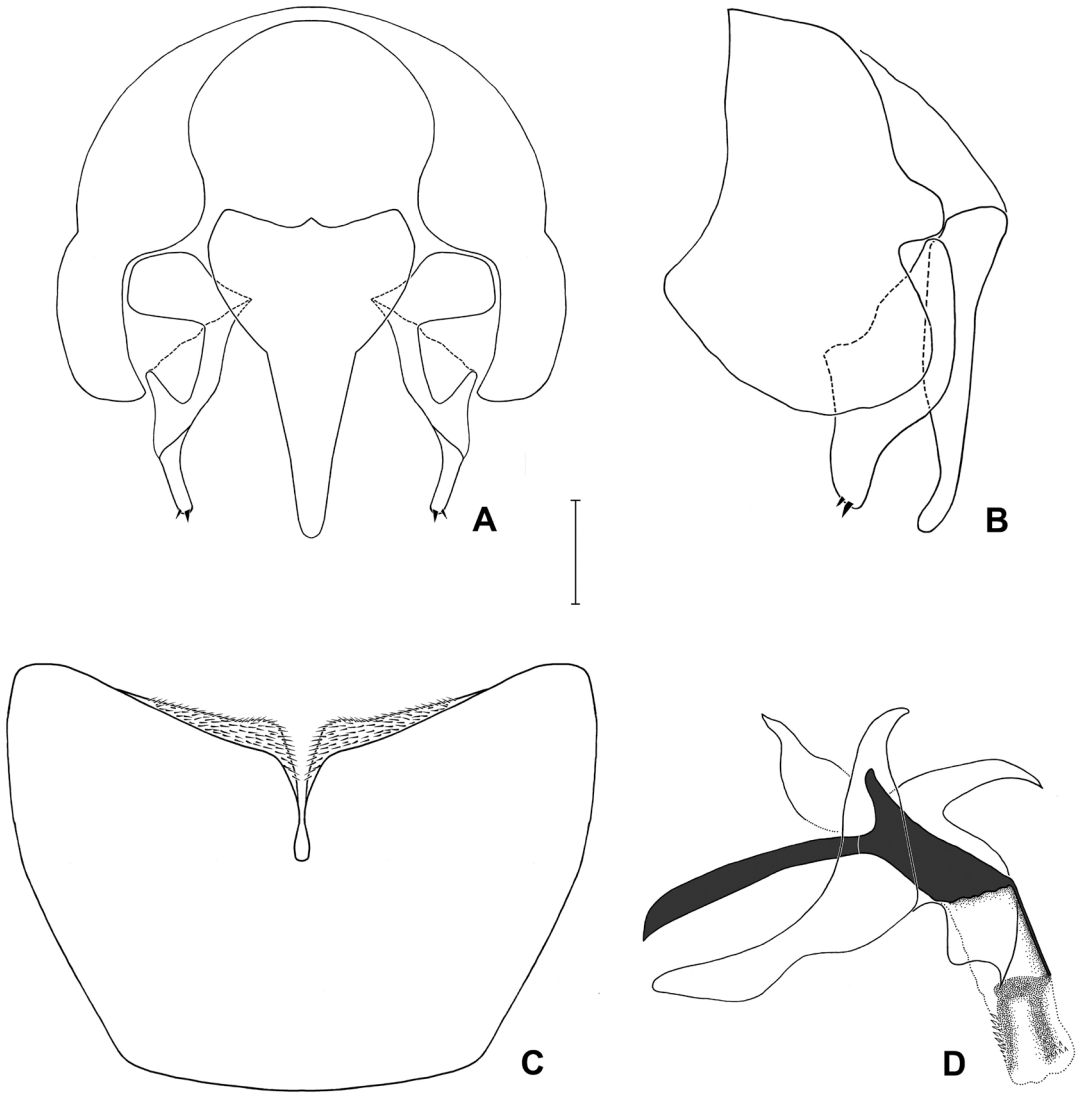

Figure 8. *Magripa persica* Gilasian & Ziegler, **sp. nov.**, terminalia, holotype (male). **A.** Epandrium, cerci and surstyli, dorsal view. **B.** Epandrium, cerci and surstyli, lateral view. **C.** Sternite 5. **D.** Hypandrial complex. Scale bar: 0.1 mm.

Genus *Mintho* Robineau-Desvoidy, 1830

Mintho rufiventris (Fallén, 1817)

Musca rufiventris Fallén, 1817:239. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 2♂♂ Chekab valley, 34°08′05.5″ N 50°15′52.7″E, 1.vi.2017, 2068 m, pan trap near mossy rock, E. Gilasian & M. Parchami-Araghi; 2♂♂ 5♀♀ Kaftar khoon valley, 34°06′49.0″ N 50°16′48.6″E, 15.vii.2018, 2203 m, Malaise trap, E. Gilasian & M. Parchami-Araghi; 4♂♂ 5♀♀, Sibak valley, 34°08′06.5″ N 50°10′59.0″E, 10.vi.2018, 1812 m, pan trap, E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Southern Far East of Russia, Korean Peninsula, China, Mongolia, Siberia, Turkmenistan, Iran, Azerbaijan, Israel, Turkey. EUROPE: widespread in all main parts of Europe.

Genus *Minthodes* Brauer and Bergenstamm, 1889

Minthodes atra (Kugler, 1971)

Pseudomintho ater Kugler, 1971:74. [For further synonyms see Herting & Dely-Draskovits (1993)].

Material examined: 7♂♂ 13♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 2.v–15.vi.2016, 2219 m, Malaise trap; 8♂♂ 10♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Iran, Armenia, Syria, Israel, Turkey (Gilasian et al., 2016; O'Hara et al., 2020).

Minthodes latifacies Herting, 1983

Material examined: 6♂♂ 4♀♀, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 2–4.vi.2017, 2094 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Iran (Gilasian et al., 2016), Azerbaijan, Syria, Israel, Turkey. EUROPE: Cyprus. Also Afrotropical Region.

Genus *Rossimyiops* Mesnil, 1953

Rossimyiops exquisitus (Richter, 2001)

Persedea exquisita Richter, 2001:28; *Mesnilomyia rufipes* Zeegers, 2007:411.

Material examined: 3♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Iran. Also Afrotropical Region.

Rossimyiops magnificus (Kugler, 1972) (Fig. 6G)

Mesnilomyia magnifica Kugler, 1972:105.

Diagnosis: Postpedicel in male 1.74–1.88 times as long as pedicel; lower facial margin in male well visible in lateral view; scutum with 3 presutural dark longitudinal vittae; scutellum with 2 pairs of marginal setae; vein R_{4+5} bare basally; wing cell r_{4+5} with long petiole, about 0.3–0.5 times as long as section of vein M beyond bend; mid tibia with 1 anterodorsal seta.

Material examined: 8♂♂, Chekab valley, 34°08′07.2″N, 50°16′56.1″E, 11.vi–20.vii.2018, 2090 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi; 4♂♂, Sibak valley, 34°05′40.0″N, 50°14′35.3″E, 2–4.vi.2017, 2094 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Iraq, Israel. NORTH AFRICA: Egypt. **New record for Iran.**

Tribe Neaerini Mesnil, 1966

Genus *Neaera* Robineau-Desvoidy, 1830

Neaera atra Robineau-Desvoidy, 1850

Glaucophana amasiae (Brauer and Bergenstamm, 1891):355.

Diagnosis: Mid tibia with 1 anterodorsal seta; abdomen shiny black, without microtrichosity; abdominal tergite 4 with 1 pair of median discal setae.

Material examined: 3♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi

Distribution: ASIA: Israel, Turkey. EUROPE: Romania, Bulgaria, Greece, Croatia, Italy, France, Spain, Portugal. **New record for Iran.**

Neaera laticornis (Meigen, 1824) (Fig. 6H)

Tachina laticornis Meigen, 1824:351. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Mid tibia with 2 anterodorsal seta; abdomen microtrichose; abdominal tergite 4 with 2 pairs of median discal setae.

Material examined: 2♂♂, Sibak valley, 34°08′06.5″N, 50°10′59.3″E, 16.vi–15.vii.2018, 1872 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: China, Mongolia, Eastern Siberia, Turkmenistan, Transcaucasia, Israel, Turkey. EUROPE: Western Russia, Hungary, Italy, France, Spain, British Isles. **New record for Iran.**

Tribe Siphonini Rondani, 1844

Genus *Peribaea* Robineau-Desvoidy, 1863

Peribaea orbata (Wiedemann, 1830)

Tachina orbata Wiedemann, 1830:336. [For further synonyms see Herting & Dely-Draskovits (1993)].

Diagnosis: Postpedicel in both sexes simple (not bifid or trifid); vein R_1 entirely setose dorsally.

Material examined: 2♂♂, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap, leg. E. Gilasian & M. Parchami-Araghi.

Distribution: ASIA: Japan, China, Saudi Arabia, Israel. NORTH AFRICA: Egypt. Also Afrotropical, Oriental, Australasian and Oceanian Regions. **New record for Iran.**

Tribe Tachinini Robineau-Desvoidy, 1830

Genus *Tachina* Meigen, 1803

Tachina danilewskyi (Portschinsky, 1882)

Echinomyia danilewsky Portschinsky, 1882:8. [For further synonyms see Herting & Dely-Draskovits (1993) under *Cnephaotachina danilevskyi*].

Material examined: 3♂♂, Azna, 34°01′20.3″N, 50°03′54.0″E, 14.viii.2018, 2149 m, pan trap, leg. E. Gilasian & M. Parchami-Araghi; 37♂♂ 20♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 28.v–15.vi.2016, 2219 m, Malaise trap; 18♂♂ 21♀♀, Chekab valley, 34°08′05.3″N, 50°16′25.3″E, 15.vi.2016, 2219 m, pan trap near small pool, leg. E. Gilasian & M. Parchami-Araghi; 4♂♂, Chekab valley, 34°08′05.5″N, 50°15′52.7″E, 1.vi.2017, 2068 m, pan trap near mossy rock, leg. E. Gilasian & M. Parchami-Araghi; 3♂♂, Sibak valley, 34°06′16.1″N 50°12′54.4″E, 2.vi.2017, 1972 m, swept, leg. E. Gilasian.

Distribution: ASIA: China, Kazakhstan, Turkmenistan, Iran, Transcaucasia, Turkey. EUROPE: Western Russia, Ukraine, Bulgaria, Greece, Macedonia, Serbia, Montenegro, Croatia, France.

DISCUSSION

The study of the external morphology of the new species *Magripa persica* Gilasian & Ziegler **sp. nov.**, revealed some inconsistencies with what was originally provided for the genus *Magripa* by Richter (1988) as well as with those mentioned by Tschorsnig & Richter (1998) in their Palaearctic key (couplet 167). In the studied specimens, the posteroventral half of occiput in males of *M. persica* **sp. nov.** comprises black and white setulae while in both the original description of *Magripa* and in Tschorsnig & Richter (1998), occiput characterized only by blackish setulae; scutum with 3 presutural acrostichal setae comparing to 1–2 setae in the original description of *Magripa*; postpedicel 10 times as long as pedicel as also noted in the original description while in Tschorsnig & Richter (1998) it is mentioned about 15 times as long as pedicel; scutellum with 3 pairs of marginal setae as noted in the original description, but 2 pairs of setae are mentioned in the couplet 154 in Tschorsnig & Richter (1998). Unfortunately, the holotype of *Magripa autumnalis* is in poor condition for which we decided not to loan the specimen to avoid possible more damages during its transportation in the mail. But Hans-Peter Tschorsnig who had precisely examined the holotype, by following exactly the same measurement methods used by Tschorsnig & Richter (1998), kindly ensured us that the postpedicel of *Magripa autumnalis* is actually 15 times as long as pedicel (vs. originally described as 10 times, see also Fig. 41 in Tschorsnig & Richter, 1998). He also corrected the chaetotaxy of scutellum from three to two for the number of marginal setae and furtherly mentioned that holotype's first aristomere is almost twice as long as wide, tegula dark, vein R_{4+5} with 4–5 very short setulae dorsally, and fore tibia with 2 preapical anterodorsal setae.

In her study, Richter (1988) treated *Magripa* as a member of the tribe Minthoini (Tachininae) based on the following morphological characters: 2 intra-alar setae on scutum, laterally compressed fore tarsus and strong preapical posteroventral seta on hind tibia. Later, Tschorsnig & Herting (1994) offered a set of characters for the separation of Central European Minthoini from the other tribes in the subfamily Tachininae, which is as follows: scutum with two wide longitudinal black stripes; preapical posteroventral seta on hind tibia nearly as long as preapical anteroventral seta; abdomen laterally compressed. However, the Iranian Minthoini species are found to show a greater range of variations in their external morphological characters, which disagree with the above-mentioned diagnosis for the tribe and is as follows: scutum in *Minthodes susae* Gilasian & Ziegler, 2016 and *Mintho rufiventris* with 1–2 intra-alar setae. In the case of presence of "2 intra-alar setae", their positions are subject to variation. In *Magripa persica* **sp. nov**. they are widely separated, but in *Mintho rufiventris* and Minthodes *latifacies* are located closely to each other. Despite the laterally compressed fore tarsus is considered characteristic for the tribe (Richter, 1988), only the first four tarsomeres are laterally compressed in *Magripa persica* and *Mintho rufiventris* and only first slightly compressed tarsomere is observed in *Minthodes susae* and *Minthodes latifacies*; fore tarsomeres 1–2 are also slightly compressed in *Rossimyiops exquisitus* and *R. magnificus*. Scutum is yellowish-orange lacking black longitudinal stripes in *Rossimyiops exquisitus* while three stripes appear in *R. magnificus*; laterally compressed abdominal tergites does not occur in *Rossimyiops exquisitus* and *R. magnificus.*

We noticed that the Iranian material of *Germaria angustata* differs from its European population in having black postpronotum comparing to brownish-yellow postpronotum given in Mesnil (1971:978). Through examining further individuals we found the European specimens of *G. angustata* represent variations in the coloration of postpronotum from light yellowish brown to blackish brown while in specimens of Asiatic and Nearctic populations the postpronotum is blackish brown or black. The dorsally shiny black tergite 5 of *G. angustata,* which has been described by Ziegler (2015:240), occurs in Nearctic, Central Asian and most of European populations. A very narrow anterior band of microtrichosity, that exists in few aberrant European specimens, is predominantly present on tergite 5 of the Iranian material. The surstyli of males in Asiatic and Nearctic populations are found to be clearly wider than those in European populations. Based on the studied material, it can be concluded that *G. angustata* tends to be a highly variable species. The species *G. hermonensis* Kugler, 1980, known from

Turkey and Israel, from which is narrowly recognized, is found to be very similar to *G. angustata*. The only differentiating character seems to be its wider frontal vitta (2.0–2.5 times as wide as fronto-orbital plate comparing to 1.1–2.0 times in *G. angustata*). A question remains whether or not these two superficially similar species are actually good species. To resolve this question, a molecular analysis with inclusion of different populations of both species is required.

Our discovery of 87 species within 66 genera in tachinids alone is an indication of the diverse insect fauna, particularly Diptera, of Haftad-Qolleh Protected Area, for which additional taxonomic studies on other taxa is highly recommended. For example, the very interesting tachinid fauna of this area includes the species *Billaea zimini*, *Bithia hermonensis, Estheria mesnili, Lomachanta rufitarsis, Magripa persica* **spec. nov**., *Naira montana, Pandelleia albipennis, Phorocera atricans, Rossimyiops exquisitus, Rossimyiops magnificus, Thrixion pilifrons, Zeuxia roederi,* all previously known from a very few specimens found only in Iran or in Iran and adjacent territories in restricted areas with natural steppe biotopes.

AUTHOR'S CONTRIBUTION

The authors confirm contribution in this paper as follows: E.G.: Collecting and identifying the material, describing the new species; preparing the manuscript. J.Z.: Confirming and describing the recorded taxa and new species; preparing the manuscript. M.P.A.: Collecting the material; checking the English of the manuscript

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CONSENT FOR PUBLICATION

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CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest regarding the publication of this paper.

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فون مگس‌های خانواده Tachinidae (Diptera) در منطقه حفاظت شده هفتاد قله استان مرکزی به همراه ۴۷ گزارش جدید برای فون حشرات ایران و توصیف یک گونه جدید برای دنیای علم

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چکیـده: طی بررسی فون دوبالان خانواده Tachinidae (Diptera) در منطقه هفتاد قله استان مرکزی، ۸۶ گونه از ۶۷ جنس جمع‌آوری و شناسایی شدند که از این تعداد ۴۶ گونه و ۱۹ جنس برای اولین بار از ایران گزارش می‌شوند. گونه جدید *Magripa persica* Gilasian & Ziegler **sp. nov.** برای دنیای علم توصیف شد. صفات افتراقی به همراه تصویرهای رنگی برای گزارش‌های جدید گونه‌ها و ترسیم اندام جنسی نر و سر از گونه جدید برای دنیا ارایه شده است.

واژگـان کلیدی: Tachinidae، Minthoini، *Magripa persica* **sp. nov.**، استان مرکزی، ایران